

*United States Court of Appeals  
for the Second Circuit*



**APPENDIX**



**75-4119**

**United States Court of Appeals**

FOR THE SECOND CIRCUIT

BETHLEHEM STEEL CORPORATION,  
Bethlehem, Pennsylvania,

*Petitioner,*

vs.

ENVIRONMENTAL PROTECTION AGENCY,  
Washington, D.C.; and

RUSSELL E. TRAIN, Administrator,  
Environmental Protection Agency,  
Washington, D.C.,

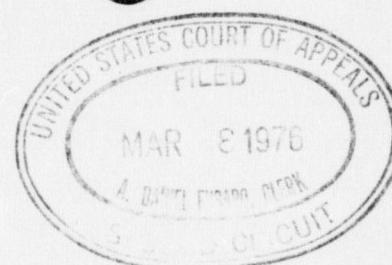
*Respondents.*

**PETITION FOR REVIEW UNDER  
FEDERAL WATER POLLUTION CONTROL ACT**

**APPENDIX**

PHILLIPS, LYTLE, HITCHCOCK,  
BLAINE & HUBER,  
*Attorneys for Petitioner,*  
3400, One Marine Midland Center,  
Buffalo, New York 14203.

BATAVIA TIMES, APPELLATE COURT PRINTERS  
A. GERALD KLEPS, REPRESENTATIVE  
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**PAGINATION AS IN ORIGINAL COPY**

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UNITED STATES COURT OF APPEALS  
FOR THE SECOND CIRCUIT

---

BETHLEHEM STEEL CORPORATION  
Bethlehem, Pennsylvania,

Petitioner,

vs.

PETITION FOR REVIEW

ENVIRONMENTAL PROTECTION AGENCY  
Washington, D.C.; and

RUSSELL E. TRAIN, Administrator,  
ENVIRONMENTAL PROTECTION AGENCY  
Washington, D.C.,

Respondents.

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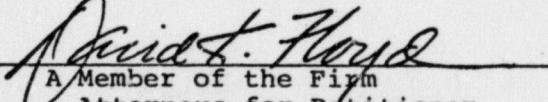
A Petition for Review of Bethlehem Steel Corporation, dated June 20, 1975.

Petitioner, Bethlehem Steel Corporation, as an owner and operator of a source located in the State of New York that is subject to and affected by the actions of Respondents as hereinafter described, hereby petitions this Court pursuant to the provisions of 42 U.S.C., Section 1369, for the review of the actions of Respondents in the promulgation published on March 25, 1975, in Volume 40, Number 58 of the Federal Register, pages 13216-17, relating to Part 704, entitled "Criteria Governing Thermal Discharges", in Title 6 of the New York Code, Rules and Regulations; and further to review the whole of said promulgation.

Dated: Buffalo, New York PHILLIPS, LYTLE, HITCHCOCK, BLAINE & HUBER  
June 20, 1975

KKz

By

  
A Member of the Firm  
Attorneys for Petitioner  
3400 Marine Midland Center  
Buffalo, New York 14203

**B Respondents' Certified Index to the Record, dated  
September 26, 1975.**

IN THE

UNITED STATES COURT OF APPEALS

FOR THE SECOND CIRCUIT

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75-4119

---

BETHLEHEM STEEL CORPORATION,

Petitioner

v.

ENVIRONMENTAL PROTECTION AGENCY, et al.,

Respondents

B Respondents' Certified Index to the Record, dated  
September 26, 1975.

IN THE UNITED STATES COURT OF APPEALS

FOR THE SECOND CIRCUIT

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No. 75-4119

BETHLEHEM STEEL CORPORATION,

Petitioner

v.

ENVIRONMENTAL PROTECTION AGENCY, et al.,

Respondents

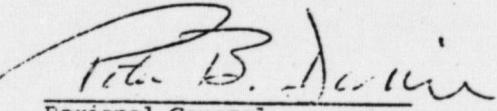
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CERTIFIED INDEX TO THE RECORD

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The Environmental Protection Agency hereby certifies that the material indexed and described below constitutes the complete record in proceedings by the Agency leading to the approval by the Administrator of certain water quality standards for the State of New York on March 25, 1975 (40 Fed. Reg. 13216-13217), which proceedings resulted in the action complained of in the petition for review. The material hereby indexed and described is in the custody of the regional office, Region II, U.S. Environmental Protection Agency, 26 Federal Plaza, New York, New York 10007.

In witness whereof I have hereunto subscribed my name this 26<sup>th</sup> day of September, 1975, at New York, New York.

  
Peter B. DeWitt  
Regional Counsel

**B Respondents' Certified Index to the Record, dated  
September 26, 1975.**

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- III. Federal / State Correspondence Under §303(a)
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ALL INFORMATION CONTAINED  
HEREIN IS UNCLASSIFIED

**B Respondents' Certified Index to the Record, dated  
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**B Respondents' Certified Index to the Record, dated September 26, 1975.**

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**B Respondents' Certified Index to the Record, dated  
September 26, 1975.**

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**B Respondents' Certified Index to the Record, dated September 26, 1975.**

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**B Respondents' Certified Index to the Record, dated September 26, 1975.**

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addition, includes article entitled "The Series of Thermal  
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**B Respondents' Certified Index to the Record, dated September 26, 1975.**

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- 117. Letter to Commissioner Biggane from G.M. Hansler, dated March 26, 1974. 1050-1056
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- 119. Letter to G.M. Hansler from Commissioner Biggane, dated April 18, 1974. 1060
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- 125. Telex letter to M. Scolnick from J. Hanna, dated June 5, 1974. 1100
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- 126. Letter to G.M. Hansler from Commissioner Biggane, dated August 8, 1974.
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- 127. Letter to J. Hanna from M. Scolnick, dated August 29, 1974. 1128
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- 128. Letter to R. Murphy from H. Allen, dated September 10, 1974. 1132
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- b. Enclosure 2 - Part 704, dated October 20, 1974. 1130-1142
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- 130. Letter to R. Zener from J. Hanna, dated October 23, 1974. 1146-1149
- 131. Letter to G.M. Hansler from Commissioner Biggane, dated November 18, 1974. 1150
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133.	Letter to G.M. Hansler from H. Woodbury, dated January 9, 1973.	1153-1154
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135.	Letter to Commissioner Diamond from N. Colosi, Chairman, Interstate Sanitation Commission, dated March 12, 1973.	1162-1163
136.	Letter to D. Stevens from K. Booman, dated May 9, 1973.	1164-1166
137.	Letter to G.M. Hansler from A. Macbeth, dated July 18, 1973.	1167-1170
138.	Letter to G.M. Hansler from G.S. Bergen, dated August 13, 1973.	1171-1172
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140.	Letter to P. Sweeny from H. Allen, dated August 21, 1973.	1175
a.	Enclosure A - Memorandum to D. Stevens from G. Burdick, dated June 22, 1971.	1176-1183
141.	Letter to G.S. Bergen from M. Scolnick, dated August 23, 1973.	1184-1186
142.	Report of Phone Call to R. B. Bevan from H. Allen, dated September 13, 1973.	1187
143.	Letter to R. Hall from G.M. Hansler, dated September 14, 1973.	1188-1189

REDACTED

**B Respondents' Certified Index to the Record, dated September 26, 1975.**

- |                                                                                            |           |
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| 144. Letter to Administrator Train from G.S. Bergen, dated September 14, 1973.             | JAN-1112  |
| a. Enclosure 1 - Memorandum on Behalf of the New York Power Pool, dated August 30, 1973.   | 1100-1208 |
| 145. Letter to M. Allen from R. Chasis, dated September 25, 1973.                          | 1200-1211 |
| 146. Letter to G.S. Bergen from R. Zerer, dated October 4, 1973.                           | 1213-1214 |
| 147. Letter to G.M. Hansler from S. Smith, dated March 13, 1974.                           | 1215-1216 |
| 148. Letter to M. Lang from G.M. Hansler, dated March 26, 1974.                            | 1217-1218 |
| 149. Letter to W. Frick and M. Scolnick from G.S. Bergen, dated February 4, 1975.          | 1219-1220 |
| a. Enclosure 1 - Memorandum of G.S. Bergen, dated February 5, 1975.                        | 1221-1234 |
| b. Enclosure 2 - Part 704, dated October 20, 1974.                                         | 1235-1242 |
| c. Enclosure 3 - Report of D. Metzler, Hearing Officer (Document 124 hereinabove indexed). | 1243-1262 |
| 150. Letter to G.S. Bergen from M. Scolnick, dated February 24, 1975.                      | 1263      |
| a. Enclosure 1 - Letter to Commissioner Reid from G.M. Hansler, dated February 23, 1975.   | 1264-1265 |
| 151. Letter to G.M. Hansler from C. Luce, dated March 17, 1975.                            | 1266      |
| a. Enclosure 1 - Letter to Administrator Train from C. Luce, dated March 17, 1975.         | 1267-1269 |

V. STATE HEARING MATERIAL (Unpaginated)

<u>Document Number</u>	<u>Page Number</u>
152. Transcripts of New York State Public Hearings on Proposed Classifications and Standards for Quality and Purity of Waters of New York State.	
a. Vol. 1 - July 31, 1973 (289 pages)	
b. Vol. 2 - August 15, 1973 (274 pages)	

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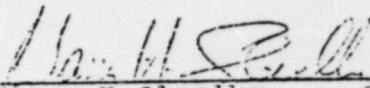
**B Respondents' Certified Index to the Record, dated  
September 26, 1975.**

- c. Vol. 3 - August 8, 1973.  
(300 pages)
- d. Vol. 4 - August 9, 1973.  
(404 pages)
- e. Vol. 5 - August 10, 1973.  
(255 pages)
- f. Vol. 6 - August 2, 1973.  
(315 pages)
- g. Vol. 7 - August 6, 1973.  
(205 pages)

B Respondents' Certified Index to the Record, dated  
September 26, 1975.

CERTIFICATE OF SERVICE

I hereby certify that copies of the enclosed Certified Index to the Record have been served upon David K. Floyd, Esquire, counsel for petitioner, by placing same in the United States mail, postage prepaid, properly addressed this 26 day of September, 1975 to David K. Floyd, Esq., Phillips, Lytle, Hitchcock, Blaine & Huber, 34 Marine Midland Center, Buffalo, New York 14203.

  
Warren H. Llewellyn  
Assistant Regional Counsel  
Region II  
U.S. ENVIRONMENTAL PROTECTION  
AGENCY  
26 Federal Plaza  
New York, New York 10007  
(212) 264-4299

C Respondents' Certified Supplemental Index to the  
Record, dated January 15, 1976.

IN THE UNITED STATES COURT OF APPEALS

FOR THE SECOND CIRCUIT

---

No. 75-4119

BETHLEHEM STEEL CORPORATION,

Petitioner

v.

ENVIRONMENTAL PROTECTION AGENCY, et al.,

Respondents

---

CERTIFIED SUPPLEMENTAL INDEX TO THE RECORD

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The Environmental Protection Agency hereby certifies that the material indexed and described below supplements the record, certified to and filed with this Court on September 26, 1975, in proceedings by the Agency leading to the approval by the Administrator of certain water quality standards for the State of New York on March 25, 1975 (40 Fed. Reg. 13216-13217), which proceedings resulted in the action complained of in the petition for review. The material hereby indexed and described is in the custody of the regional office, Region II, U.S. Environmental Protection Agency, 26 Federal Plaza, New York, New York 10007.

In witness whereof I have hereunto subscribed my name this 15th day of January, 1976, at New York, New York.

s/ Peter B. Devine  
\_\_\_\_\_  
Regional Counsel

C Respondents' Certified Supplemental Index to the  
Record, dated January 15, 1976.

SUPPLEMENTAL INDEX TO THE RECORD OF THE ACTION OF THE  
ADMINISTRATOR RELATIVE TO CERTAIN WATER QUALITY  
STANDARD FOR THE STATE OF NEW YORK

- I. Federal Register Notices
- II. Pre-1972 Background Material
- III. Federal / State Correspondence Under §303(a)
- IV. General Correspondence and Public Comments
- V. State Hearing Material
- VI. Supplemental Material

\* \* \* \*

VI. SUPPLEMENTAL MATERIAL

<u>Document Number</u>		<u>Page Numbers</u>
153	Memorandum to M. Scolnick from G. W. Frick, dated November 20, 1974.	1270-1272
a.	Attachment - Memorandum to Chief, Planning and Standards Branch from Associate General Counsel, dated December 29, 1972.	1273-1275

## 2 Proposed Rules, Navigable Waters of the State of New York—Proposed Water Quality Standards, Etc.

### PROPOSED RULES

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Interested persons may submit written data, views, or arguments, in triplicate, in regard to the proposed regulations to the Regional Administrator, 26 Federal Plaza, Room 908, New York, New York 10007. All relevant material received by January 21, 1973 will be considered.

JOHN QUARLES,  
Acting Administrator.

DECEMBER 11, 1973.

Chapter I of Title 40, Code of Federal Regulations, is amended as follows:

1. Part 120 is amended to add § 120.14 as follows:

#### § 120.14 New Jersey water quality standards.

(a) **Waters.**—The water quality standards of this section are applicable to the interstate and intrastate waters of New Jersey.

(b) **Use Classifications.**—The following use classification will include secondary water contact recreation (e.g., fishing, boating, etc.) and propagation and maintenance of desirable (indigenous) species of aquatic life and source of public water supply as designated uses—TW-2.

(c) **Stream Classifications.**—The following waters are classified TW-2—Main stem Rahway River, Rt. I-9 crossing to West Grand Avenue, Rahway; South Branch Rahway River, mouth to Hazelwood Avenue, Rahway; Robinsons Branch Rahway River, mouth to Hamilton Street, Rahway; Passaic River, confluence with Second River to Dundee Dam; Saddle River, mouth to head of tide.

(d) **Mixing Zones.**—For all water use classifications, the total area/or volume of a body of water assigned to mixing zones shall be limited to that which will not interfere with biological communities or populations of important species to a degree which is damaging to the ecosystem nor diminish other beneficial uses disproportionately. (This modifies an existing criterion).

(e) **Zones of Passage.**—For all water use classifications, in river systems, reservoirs, lakes, estuaries and coastal waters, zones of passage are considered to be continuous water routes, of the volume, area and quality necessary to allow passage of free-swimming and drifting organisms with no significant effects produced on their populations. These zones must be provided wherever mixing zones are allowed. (This modifies an existing criterion).

(f) **Test Procedures.**—Analyses of water quality necessary to determine compliance with water quality standards shall be performed in accordance with the requirements of 40 CFR Part 136.

(g) **Turbidity.**—For FW-2, FW-3, TW-1, CW-1 and CW-2 waters, turbidity shall not exceed 10 Jackson Turbidity Units (JTU). For TW-2 waters, the turbidity shall not exceed 50 Jackson Turbidity Units (JTU). (This modifies an existing criterion).

(h) **pH.**—For CW-1 and CW-2 waters, the natural pH range shall not be al-

tered. (This replaces an existing criterion).

(i) **Dissolved Solids.**—For FW-2 waters and for TW-1 and TW-2 waters used as public potable water supply, the maximum concentration of dissolved solids shall be 500 mg/l or one-third above (133% total) natural characteristic levels, whichever is less. For FW-3 waters and for other TW-1 and TW-2 waters, the maximum concentration of dissolved solids shall be one-third above (133% total) natural characteristic levels. (This is an additional criterion for the State).

(j) **Phosphorus.**—For FW-2 and FW-3 waters, phosphorus as total P shall not exceed 50 ug/l in any reservoir, lake, pond or in a tributary at any point where it enters such bodies of water. (This is an additional criterion for the State).

(k) **Delaware River.** The waters of the Delaware River main system zone IC (N.Y.-N.J. State line to R.M. 217.0), Zone ID (R.M. 217.0 to R.M. 185.0), Zone IE (R.M. 185.0 to R.M. 133.4), Zone 2 (R.M. 133.4 to R.M. 108.4), Zone 108.4 to R.M. 95.0), Zone 4 (R.M. 95.0 to R.M. 78.8), Zone 5 (R.M. 78.8 to R.M. 48.2) and Zone 6 (R.M. 48.2 to R.M. 0.0)—shall meet the following use description and criteria:

(1) **Use Description.** The following Zones shall include, as a use primary contact/recreation—Zone IC, ID, IE, 2 (above R.M. 117.81), 5 (below R.M. 59.5) and 6.

(2) **Dissolved Oxygen (DO).** For Zones IC, ID, and IE, the daily average DO concentration shall not be less than 5.0 mg/l. For Zone 6, the DO concentration shall not be less than 5.8 mg/l at any time from other than natural conditions. (This modifies an existing criterion).

(3) **Dissolved Solids.** For Zones IC, ID, IE, 2 and 3, the maximum concentration of dissolved solids shall be 500 mg/l or one-third above (133% total) natural characteristic levels, whichever is less. (This is an additional criterion for the State). For Zone 4, the maximum concentration of dissolved solids shall be one-third (133% total) natural characteristic levels. (This is an additional criterion).

(4) **Turbidity.** For Zone IC, turbidity shall not exceed a monthly mean of 20 Jackson Turbidity units (JTU) nor shall any value exceed 150 JTU. For Zone ID, turbidity shall not exceed a monthly average of 20 JTU nor shall any value exceed 150 JTU. For Zone IE, turbidity shall not exceed a monthly average of 30 JTU nor shall any value exceed 150 JTU. (All above are additional criteria for the State). For Zone 2, from May 30 to September 15 above R.M. 117.81, turbidity shall not exceed a maximum of 30 JTU. (This modifies an existing criterion).

(5) **Bacterial Quality.** For Zone 5 above R.M. 59.5, fecal coliform shall not exceed a geometric mean of 770 per 100 ml; below R.M. 59.5, fecal coliform shall not exceed a geometric mean of 200 per 100 ml from other than natural conditions. (This replaces an existing criterion).

(6) **Phenol.** For Zone 5 and 6, phenol shall exceed 0.010 mg/l except from natural conditions. (This replaces an existing criterion).

(7) **Temperature.** For all Zones, the rate of temperature change in designated mixing zones shall not cause mortality of the biota. For Zone 5, no heat may be added except in designated mixing zones which would cause temperatures to exceed 86° F or which would cause the monthly mean of maximum daily temperatures at any site, prior to the addition of heat to be increased by more than 40° F during September through May, or to be increased by more than 1.5° during June through August. For Zone 6, the criteria for Zone 5 apply except the maximum temperature shall be 85° F. (This replaces an existing criterion).

(8) **Thermal Mixing Zones.** For Zone IC, heat dissipation areas shall have a maximum length of 1000 feet. (This replaces an existing criterion). For Zones 2, 3, 4, 5 and 6, adjacent waste discharges shall not result in heat dissipation areas in such proximity to each other as to impair protected uses. For Zones 2, 3, and 4, mixing zones shall be limited to no more than  $\frac{1}{4}$  of the cross-sectional area and/or volume of flow of the body of water, leaving  $\frac{3}{4}$  free as a zone of passage including a minimum of  $\frac{1}{3}$  of the surface measured from shore to shore at any stage of tide, nor shall the length of the mixing zone exceed 3500 feet. For Zones 5 and 6, the length of the mixing zone shall not exceed 3500 feet. (This is an additional criterion for the State).

(1) **Thermal Mixing Zones.** As a guideline for FW-2, FW-3, TW-1 and TW-2 waters, thermal mixing zones shall be limited to no more than  $\frac{1}{4}$  of the cross-sectional area and/or volume of the flow of stream or estuary, leaving at least  $\frac{3}{4}$  free as a zone of passage, including a minimum of  $\frac{1}{3}$  of the surface measured from shore to shore at any stage of tide or flow. (This is an additional criterion for the State).

[FR Doc. 73-26857 Filed 12-19-73; 8:45 am]

[40 CFR Part 120]

### NAVIGABLE WATERS OF THE STATE OF NEW YORK

#### Proposed Water Quality Standards

Notice is hereby given that pursuant to the authority of section 303(b) of the Federal Water Pollution Control Act, as amended, ((3 U.S.C. 1251, 1313(b)); 86 Stat. 816 et seq.; Pub. L. 92-500), regulations setting forth standards of water quality to be applicable to the navigable waters of the State of New York are proposed.

Under section 303(a) of the Act, the Administrator of the Environmental Protection Agency is required to review water quality standards for interstate and intrastate waters adopted and submitted by the States. When he determines that changes in such standards are required to meet the requirements of the Act as in effect prior to October 18, 1972, (the date of enactment of the 1972 Amend-

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### PROPOSED RULES

ments to the Act, Pub. L. 92-500), he must notify the State. If the State does not adopt the required revisions, or if the revisions submitted by the State do not meet the requirements of the Act, the Administrator is to publish proposed revised water quality standards in accordance with such requirements.

The State of New York, prior to October 18, 1972, adopted water quality standards for both interstate and intrastate waters. After the enactment of the 1972 Amendments, EPA reviewed both the interstate and intrastate standards pursuant to section 303(a) of the Act. (A notice concerning EPA review of all interstate and intrastate water quality standards was published in the *FEDERAL REGISTER* on December 29, 1972, 37 FR 2877-28780). The interstate standards for New York are identified in 40 CFR Part 120 (37 FR 6087, March 24, 1972). The intrastate standards are contained in the same document which sets forth the standards for interstate waters. The standards document is available for inspection and copying at the Department of Environmental Conservation, 50 Wolf Road, Albany, New York 12101 and at EPA's Regional Office, Region II, 26 Federal Plaza, New York, New York 10007. EPA's information regulations, 40 CFR Part 2, provide that a fee may be charged for making copies.

On January 17, 1973, the Regional Administrator notified New York that certain revisions to its interstate water quality standards were necessary to make the standards consistent with the applicable requirements of the Act. On March 13, 1973, a similar notification was made for intrastate water quality standards. The State has not formally submitted the required revisions within the 90-day period allowed by sections 303(a)(1) and 303(a)(2) of the Act. Accordingly, pursuant to section 303(b)(1), EPA is now proposing regulations setting forth standards required to comply with the Act as in effect prior to October 18, 1972.

Section 303(b)(2) of the Act requires the Administrator to promulgate standards no later than 190 days after the date of publication of this notice, unless by such time the State shall have adopted a water quality standard which the Administrator determines to be in accordance with the requirements of section 303(a) of the Act. However, the Administrator is not required to await State action for the entire 190 day period prior to promulgation. Thus, these standards may be promulgated by the Administrator at any time following the expiration of time for public comment.

Except as provided in the attached proposed regulations, the interstate and intrastate standards previously adopted by the State of New York, as referenced above, are the effective water quality standards under section 303 of the Act for interstate and intrastate navigable waters within that State. Where the proposed regulations set forth below are inconsistent with the referenced standards, these regulations, if promulgated, will supersede such standards to the extent of the inconsistency.

Interested persons may submit written data, views, or arguments, in triplicate, in regard to the proposed regulations to the Regional Administrator, Region II, 26 Federal Plaza, New York, New York 10007. All relevant material received by March 20, 1974 will be considered.

JOHN QUARLES,  
Acting Administrator.

DECEMBER 11, 1973.

Chapter I of Title 40, Code of Federal Regulations, is amended as follows:

1. Part 120 is amended to add a new § 120.13 as follows:

#### § 120.13 New York water quality standards.

(a) **Waters.** The water quality standards of this section are applicable to the interstate and intrastate waters of New York.

(b) **Stream Classifications.** All waters presently classified I-I shall be reclassified Class I. The streams or stretches thereof listed below shall be reclassified B or C as indicated. The remaining waters presently classified D, SD or II shall be reviewed periodically by the Department of Environmental Conservation and the Environmental Protection Agency and reclassified C, SC or I as further evidence indicates such action is warranted.

The following waters shall be reclassified Class C: 6NYCRR: 815.6 items 914 (Brush Brook & Tribs.), 927 (Trib. of W. Branch Delaware R.); 863.6 items 61 (Trib. of Nortse Creek), 84 (Renwick Brook), 259 (Murderers Creek), 264 (Rocky Brook), 360 (Wyamanock Creek), 404 (Claverack Creek), 419 (Taghkanic Creek), 425 (Mud Creek), 467 (Holloway Creek), 543 (Coeyman's Creek), 550 (Onesquethaw Creek), 604 (N. Branch Moordener Kill), 652 (Vly Creek), 702 (Mill Creek), 704 (Mill Creek), 776 (Poesten Kill); 940.4 items 85 (Shingle Hollow Creek), 94 (Little Hoosic River), 115 (Trib. of Little Hoosic River), 117 (Trib. of McGan Brook); 879.6 items 103 (Little Schoharie Creek), 106 (Little Schoharie Creek), 231 (Trib. of Batavia Kill); 910.6 items 6 (English River), 15 & 16 (Hinchin Brook), 19 & 21 (Collins Brook), 25 (Chateaugay River), 39 (Lower Chateaugay Lake Tribs.), 43 (Chateaugay Narrows), 44 & 45 (Upper Chateaugay Lake), 80 (Trout River), 81, 87, 90, 92, 98, 100, 104, 107, 116 (Salmon River, L. Salmon River), 117 (portion), 117 (portion), 140 (portion), 140 (portion), 143, 147, 149, 153, 155, 157 (portion), 157 (portion), 158, 163, 165, 167, 170, 172, 174 & 175, 177, 187, 189, 197, 200, 201, 205 (St. Regis River), 226, 236, 273 (Stoney Brook), 282, 284, 302, 323 (West Branch St. Regis River, Lake Ozonia Outlet), 327, 330, 332 (Leach Pine Brook and Tribs.), 334 (Leach Pine Brook), 345 (Pleasant Brook), 352, 359 (Chap Brook), 361, & 362, 364, 374 (Osgood River), 385 (Hays Brook), 390, 392, 402, 406, 407, 410, 413, 417, 420, 422, 426, 432, 433, 435, 527, 529 (Mt. Brook), 562 (Willis Brook), 564 (Black Brook), 568, 607, 624, 628, 633 (Little Wolf Pond Tribs.), 644, 649, 657, 660, 663, 664, 665, 667, 747, 750, 751, 763, 788, 791, 1214 (Blanchard Creek), 1309, 1321, 1332, 1334 (Clen Creek), 1348 (portion), 1348 (portion), 1348 (portion), 1362 (portion), 1404 (Fish Creek), 1432 (portion), 1432 (portion), 1432 (portion), 1500 (Stammer Creek), 1502 (Paddy Brown Brook), 1542, 1568 (portion), 1568 (portion), 1122 (Little Black Creek), 1125 (Pleasant

Creek), 1139, 1146 (Trout Brook), 1150 (Black Creek, Spring Brook), 1426 (Mullins Marsh Creek), 1426 (portion), 1464 (Blanchard Creek), 1546, 1460, 1403, 468 (Parkhurst Brook), 493 (portion) 493 (portion), 495 (portion), 495 (Dead Creek), 522, 608, 962, 982 (Bullock Creek), 994 (portion), 994 (Gibbons Brook), 994 (Edmond Brook), 994 (portion), 994 (portion), 999 (portion), 999 (portion), 999 (portion), 999 (portion), 1000, 1001 (Orebed Creek), 1007, 1008 (Buck Brook), 1011, 1012, 1013, 958 (Boyden Brook), 986 (Cedar Lake St.), 1650 (Mullett Creek), 1651 (portion), 1651 (portion), 1651 (portion), 230 (Alien Brook), 267 (Barton or Trout Brook), 259 (Trout Brook), 311 (Big Hollow Brook); 922 items 9 (Tuthills Creek), 11 (Patchogue Creek), 19 (Swan Creek), 35 (Beaver Dam Creek), 41 (Carmans River); 931.4 items 1393 (Carrs Creek), 1486 (Brier Creek), 1488 (Brier Creek), 1810 (Trib. of Susquehanna R.), 1018 (Trib. of Unadilla River), 1059 (Cahoon Creek), 1083 (Trib. of Butternut Creek), 1423 (Handsome Brook), 1425 (East Branch Handsome Brook), 1432 (West Branch Handsome Brook), 1439 (Treadwell Creek), 1520 (Kortright Creek), 1732 (Trib. of Schenevus Creek), 1734 (Trib. of Schenevus Creek), 1762 (Trib. of Schenevus Creek), 1920 (Oaks Creek), 1934 (Trib. of Canadarago Lake), 1939 (Trib. of Canadarago Lake).

The following waters shall be reclassified Class B: 6NYCRR: 800.4 items 1 (Hare Creek), 2 (E. Branch French Creek), 34 (W. Branch French Creek), 800.5 items 4 (Little Brokenstraw Creek), 30 (Brokenstraw Creek); 800.6 item 4 (Conewango Creek); 802.4 items 1 (Honeoye Creek), 32 (Allegheny River), 57 (Knapp Creek-Quaker Run), 204 (Indian Creek-Tunungwant Creek); 811.6 item 271 (Trouts Creek); 815.6 items 811 (Cat Hollow Creek) and 813 (Starboard Creek); 839.6 item 118 (Twenty Mile Creek); 931.4 item 904 (Cascade Creek).

(c) **Class A-special.** For waters classified A-special, the General and the Specific Objectives of the Great Lakes Water Quality agreement, April 1972, shall apply. (This modifies an existing criterion)

(d) **Stream Flow.** For all waters, the water quality standards shall apply at all times except during periods when flows are less than the minimum average 7-consecutive day low flow which occurs once in ten years (MATCD/10yr). Contingency plans will govern during critical periods when stream flows are less than the MATCD/10yr. (This modifies an existing criterion)

(e) **Mixing Zones.** For all water use classifications, the total area and/or volume of a receiving stream assigned to mixing zones shall be limited to that which will not interfere with biological communities or populations of important species to a degree which is damaging to the ecosystem nor diminish other beneficial uses disproportionately. (This modifies an existing criterion)

(f) **Zones of Passage.** For all water use classifications, in river systems, reservoirs, lakes, estuaries and coastal waters, zones of passage are continuous water routes of the volume, area and quality necessary to allow passage of free-swimming and drifting organisms with no significant effects produced on their populations. These zones must be

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provided wherever mixing zones are allowed.

(1) Because of varying local physical and chemical conditions and biological phenomena, no single value can be given on the percentage of river width necessary to allow passage of critical free-swimming and drifting organisms so that negligible or no effects are produced on their populations. (This modifies an existing criterion)

(g) *Analytical Testing.* For all water use classifications, all participating laboratories shall routinely utilize laboratory and quality control procedures in a manner mutually agreed upon by the Department of Environmental Conservation and Regional Administrator, Environmental Protection Agency. (This replaces an existing criterion)

(h) *Dissolved Oxygen (DO).* For all cold fresh waters suitable for trout spawning the DO concentration shall not be less than 7.0 mg/l from other than natural conditions.

(1) For trout waters classified AA, A, B or C the minimum daily average DO concentration shall not be less than 6.0 mg/l. At no time shall the DO concentration be less than 5.0 mg/l except from natural conditions. In large streams that have some stratification or that serve principally as migratory routes DO levels may range between 4.0 and 5.0 mg/l for periods up to 6 hours, but in no case shall the DO be below 4.0 mg/l.

(2) For nontrout waters classified AA, A, B or C (streams, unstratified lakes and epilimnion of stratified lakes) the minimum daily average DO concentration shall not be less than 5.0 mg/l. At no time shall the DO concentration be less than 4.0 mg/l except from natural conditions. Within the hypolimnion of small, inland oligotrophic lakes and large lakes, the DO concentration shall not be less than 6.0 mg/l from other natural conditions. (These proposals modify existing criteria)

(3) For waters classified 1, the DO concentration shall not be less than 4.0 mg/l from other than natural conditions.

(i) *Dissolved Solids.* For waters classified AA and A, the maximum concentration of dissolved solids shall be 500 mg/l. For waters classified B and C, concentrations of total dissolved solids shall not be changed to the extent that the biological communities characteristic of particular habitats are significantly changed. (This is an addition criterion for the State)

(j) *Bacterial Quality.* For waters classified AA, A, B, SB and 1, Fecal coliform levels shall not exceed a geometric mean of 200 per 100 ml.

(l) For waters classified C and SC, a geometric mean of 10,000 total coliform or of 2,000 fecal coliforms per 100 ml shall not be exceeded. (This modifies an existing criterion)

(k) *Color and Turbidity.* For waters classified AA, turbidity shall not exceed 5 Jackson Turbidity Units (JTU). For all

water use classifications, there shall be no increase in turbidity, except from natural conditions, that will cause a substantial, visible contrast to the natural conditions. (This is an additional criterion for the State)

(l) *Taste and Odor Producing Substances.* For all water use classifications, none in amounts that will render any undesirable taste or odor to edible aquatic life or impair the waters for any other best usage. (This modifies an existing criterion.)

(m) *Waters of the mainstem of the Delaware River.* shall meet the criteria of Class A (trout or non-trout as applicable) with the exception of pH, turbidity and thermal which shall be as follows: The pH shall range between 6.0 and 8.5. The turbidity shall not exceed a monthly average of 10 Jackson Turbidity Units (JTU) nor shall any value exceed 150 JTU.

(1) For Zone 1B, the water temperature at the surface of a stream shall not be raised to more than 90°F at any point. Further, in at least 50 percent of the cross sectional area and/or volume of flow of the stream including a minimum of 1/2 of the surface as measured from shore to shore or the width encompassing one-half of the entire cross-sectional area of the stream, whichever is less, the temperature shall not be raised to more than 5°F at any point over the temperature that existed before the addition of heat of artificial origin or to a maximum of 87°F which ever is less. Further, the discharge must meet the additional requirements that at no more than a distance of 1000 feet or 20 times the average width of the stream, whichever is less, measured from the point where the waste discharge enters the stream, shall the temperature be raised more than 5°F over the temperature that existed before the addition of heat of artificial origin or to a maximum of 87°F, whichever is less. For the protection of the aquatic biota from severe temperature changes, routine shutdown of an entire thermal discharge at any site shall not be scheduled during the period from December through March. For Zone 1A, the maximum temperature shall be 58°F or natural ambient with a 5°F temperature rise allowed to a maximum of 50°F and a 2°F temperature raise allowed to a maximum of 58°F. Further the thermal discharge shall not cause the temperature criteria to be exceeded beyond a distance of no more than 1000 feet or 20 times the average width of the stream, whichever is less, measures from the point where the waste discharge enters the stream, nor beyond a width of 50 percent of the surface as measured from shore to shore or the width encompassing one-half of the entire cross-sectional area of the stream, whichever is less, nor beyond 50 percent of the cross-sectional area and/or volume of the flow of the stream. This modifies existing State criteria.

[FR Doc.73-26856 Filed 12-19-73; 8:45 am]

**FEDERAL COMMUNICATIONS  
COMMISSION**

[47 CFR Part 73]

[Docket No. 19833]

**FM BROADCAST STATIONS IN BEAUFORT,  
SOUTH CAROLINA**

**Order Extending Time For Filing Comments  
and Reply Comments**

In the matter of amendment of § 73.202(b), table of assignments, FM Broadcast Stations, (Beaufort, South Carolina); Docket No. 19833, RM-2088.

1. On September 26, 1973, the Commission adopted a notice of proposed rulemaking in the above-entitled proceeding. Publication was given in the *FEDERAL REGISTER* on October 9, 1973, 38 FR 27844. Comment and reply comment dates are presently December 10 and December 21, 1973, respectively.

2. On December 6, 1973, counsel for Sea Island Broadcasting Corporation (proponent in this proceeding) requested that the time for filing comments be extended to December 21, 1973. Counsel states that the additional time is necessary because certain of the information requested in the notice of proposed rulemaking has not been able to have been gathered.

3. We are of the view that the public interest would be served by extending the time in this proceeding. Accordingly, it is ordered, That the dates for filing comments and reply comments are extended to and including December 21, 1973 and January 4, 1974, respectively.

4. This action is taken pursuant to authority found in sections 4(i), 5(d)(1), and 303(r) of the Communications Act of 1934, as amended, and § 0.281(b)(6) of the Commission's rules.

Adopted: December 11, 1973.

Released: December 14, 1973.

**FEDERAL COMMUNICATIONS  
COMMISSION**

[SEAL] WALLACE E. JOHNSON,  
*Chief, Broadcast Bureau.*

[FR Doc.73-26874 Filed 12-19-73; 8:45 am]

[47 CFR Part 73]

[Docket No. 19842]

**FM BROADCAST STATIONS IN MISSOURI**

**Order Extending Time For Filing Reply  
Comments**

In the matter of amendment of § 73.202(b), table of assignments, FM Broadcast Stations, (Cape Girardeau, Dexter, Portageville, Caruthersville, and Malden, Missouri); Docket No. 19842, RM-2006 and RM-2117.

1. On October 3, 1973, the Commission adopted a notice of proposed rulemaking in the above entitled proceeding. Publication was given in the *FEDERAL REGISTER* on October 15, 1973, 38 FR 28573. The date for filing comments has expired and the date for filing reply comments is December 14, 1973.

### 3 Rules and Regulations, Part 120—Water Quality Standards—Navigable Waters of the State of New York, Etc.

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**Title 40—Protection of Environment**  
**CHAPTER I—ENVIRONMENTAL PROTECTION AGENCY**  
 [FRL 341-8]

**PART 76—PREVENTION, CONTROL, AND ABATEMENT OF AIR POLLUTION FROM FEDERAL GOVERNMENT ACTIVITIES: PERFORMANCE STANDARDS AND TECHNIQUES OF MEASUREMENT**

*Revocation of Part*

Part 76 of Title 40, Code of Federal Regulations, is hereby revoked for the reasons set forth below.

40 CFR Part 76 prescribes performance standards and techniques of measurement for the control of air pollutants from Federal facilities. It was originally promulgated as 42 CFR Part 76 on June 6, 1966, by the then Secretary of Health, Education and Welfare (HEW), under section 5 of Executive Order 11282 (May 26, 1966). It was redesignated as 40 CFR Part 76 on November 25, 1971 (36 FR 22369).

In 1966, the national air pollution control program was less comprehensive and far-reaching than it is today, and State and local control efforts ranged from relatively sophisticated programs to some that were rudimentary at best. In recognition of these circumstances, E.O. 11282 established as national policy a leadership role for Federal agencies in the nationwide effort to prevent and abate air pollution. Among other things, the Order provided that:

Except for discharges of radioactive emissions which are regulated by the Atomic Energy Commission, Federal facilities and buildings shall conform to the air pollution standards prescribed by the State or community in which they are located. If State or local standards are not prescribed for a particular location, or if State and local standards are less stringent than the standards established pursuant to this Order, [the latter standards] shall be followed. (Emphasis added.)

The Order directed the Secretary of HEW to prescribe the standards referred to in the above excerpt, and the regulations later redesignated as 40 CFR Part 76 were promulgated for that purpose.

The regulations remained basically unchanged until redesignated on November 25, 1971, at which time they were modified to reflect a new Executive Order (E.O. 11507) and Reorganization Plan No. 3 of 1970 (establishing the Environmental Protection Agency). The only substantive changes made in the regulation to date have been (1) the establishment of specific sulfur dioxide emission limitations for Federal facility fuel combustion units located within three air quality control regions encompassing the New York City, Chicago, and Philadelphia metropolitan areas and (2) the elimination of a size limitation on particulates from fuel combustion sources. Otherwise, Part 76 has remained essentially unchanged since its promulgation in 1966. For reasons discussed more fully below, the Administrator has concluded that Part 76 is substantially inconsistent with the regulatory scheme mandated by the Clean Air Amendments of 1970

#### RULES AND REGULATIONS

and should be revoked as confusing and unnecessary.

As indicated in 40 CFR Part 76.2, the intent of the standards prescribed in Part 76 was to preclude emissions that "endanger health or welfare" from Federal facilities and to minimize emissions "likely to be injurious or hazardous to people, animals, vegetation, or property" from such facilities. Sections 110, 111, 112, and 303 of the Clean Air Act, among other provisions, now provide a comprehensive scheme for State and Federal regulation of such emissions, and it is clear that substantive standards adopted or otherwise effective under that scheme are applicable to Federal facilities.

Thus, section 118 of the Clean Air Act (42 U.S.C. 1857f), as amended in 1970, requires Federal departments, agencies, and instrumentalities to comply

with Federal, State, interstate, and local requirements respecting control and abatement of air pollution to the same extent that any person is subject to such requirements.

Similarly, Executive Order 11752, issued in 1973 (38 FR 34793, Dec. 19, 1973), directs the heads of Federal agencies to ensure that all facilities under their jurisdiction conform to

Federal, State, interstate, and local air quality standards and emission limitations adopted in accordance with or effective under the provisions of the Clean Air Act, as amended.

Finally, the courts have recently confirmed that substantive emission standards and limitations in State implementation plans are applicable to Federal facilities and enforceable against them. *Kentucky v. Ruckelshaus*, 497 F. 2d 1172 (6th Cir. 1974). See also *Alabama v. Seeger*, 502 F. 2d 1238 (5th Cir. 1974).

As a result of the foregoing developments, the standards prescribed in Part 76 have become largely obsolete, as well as inconsistent with other standards adopted or otherwise effective under the Clean Air Act as amended in 1970. Under section 110 of the Act, the Administrator must assure that State implementation plans are adequate to attain and maintain national ambient air quality standards that protect public health and welfare and, as indicated above, substantive requirements in such plans are applicable to Federal facilities and enforceable against them. Thus, the standards prescribed in Part 76, which were intended to fill gaps in State and local regulation of such facilities and to apply where corresponding State and local standards were less stringent, are essentially superfluous under the current scheme of regulation.

In addition, the standards prescribed in Part 76 are often inconsistent with the requirements of State implementation plans, which vary from State to State and often within States. Where such differences exist, Federal facilities may be unable to comply with both sets of standards. In any event, the Part 76 standards are a source of potential confusion, inefficiency, and error.

Part 76 also contains a provision for the disposal of solid waste at Federal facilities. On August 14, 1974, guidelines for thermal processing and land disposal of solid waste were published and the Solid Waste Disposal Act, as amended (39 FR 29328). Section 211 of that Act makes compliance with these guidelines mandatory for Federal agencies. The solid waste disposal provision in Part 76 is no longer necessary.

Part 76 also provides for technical assistance and guidance to Federal agencies in the control of emissions. Executive Order 11752 directs the Administrator to provide technical advice and assistance to the heads of Federal agencies in connection with their duties and responsibilities to prevent, control and abate environmental pollution. Providing such assistance is an ongoing activity, and revocation of Part 76 will not diminish in any way the extent of such assistance.

For the reasons discussed above, the Administrator of the Environmental Protection Agency has determined that the provisions of 40 CFR Part 76 are essentially obsolete and should be revoked. For essentially the same reasons, the Administrator has found that notice and public procedure for the revocation of Part 76 are unnecessary and not in the public interest, and that good cause exists for making the revocation effective immediately. The revocation is accordingly effective March 25, 1975.

Dated: March 19, 1975.

RUSSELL E. TRAIN,  
*Administrator.*

[FR Doc. 75-7714 Filed 3-24-75; 8:45 am]

[FRL 339-5]  
**PART 120—WATER QUALITY STANDARDS**

#### Navigable Waters of the State of New York

The purpose of this notice is to amend 40 CFR Part 120 announcing the adoption by the State of New York and approval by the Environmental Protection Agency (EPA) of water quality standards for the State of New York pursuant to section 303(a) of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1313(a); 86 Stat. 816 et seq.; Pub. L. 92-500; the "Act").

Under section 303(a) of the Act, the Administrator of the Environmental Protection Agency is responsible for reviewing State water quality standards applicable to waters of the United States for consistency with the requirements of the Act as in effect immediately prior to the date of enactment of the Federal Water Pollution Control Act Amendments of 1972. Under these requirements, State water quality standards shall consist of (A) water quality criteria applicable to the waters of the State and (B) a plan for implementation and enforcement of the water quality criteria.

On January 17, 1973, the EPA advised New York State that portions of its water quality standards, including its thermal

### 3 Rules and Regulations, Part 120—Water Quality Standards—Navigable Waters of the State of New York, Etc.

#### RULES AND REGULATIONS

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criteria, were inconsistent with the requirements of the Act and that such standards should be revised by the State and submitted to the EPA for approval. On February 21, 1974, New York State adopted and on March 8, 1974, submitted to the EPA new and revised water quality standards in accordance with section 303 of the Act. On May 8, 1974, the EPA approved the New York State standards (title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) parts 700, 701 and 702, and parts 800 through 941), except for criteria governing thermal discharges (6 NYCRR part 704).

On September 20, 1974, New York State adopted and on November 18, 1974, submitted to the EPA revised water quality standards (6 NYCRR parts 701 and 702) and new and revised thermal water quality standards (6 NYCRR part 704) in accordance with section 303 of the Act. Following review of these standards, the EPA determined that the amendments to sections 701 and 702 and §§ 704.1 and 704.2 and 704.3 exclusive of references to the remainder of part 704 are approvable water quality standards under section 303 of the Act. The EPA approved these portions of part 704 on February 23, 1975.

In carrying out its responsibilities under the Act, the EPA carefully reviewed the New York State records of public hearings held in connection with its adoption of thermal standards and carefully reviewed the legal questions involved. The EPA also reviewed pertinent correspondence from New York State, dated October 23, 1974, and from the New York Power Pool, dated February 4, 1975. The EPA concluded that § 704.4 (Additional limitations and modifications), § 704.5 (Intake structures), and § 704.6 (Applicability of criteria) should be exempted from consideration because these sections are not water quality standards under section 303(a) of the Act. The EPA sent New York State notification of this determination on February 23, 1975.

The basis for the EPA decision to exempt §§ 704.4, 704.5 and 704.6 from consideration as water quality standards is as follows.

Section 704.5 cannot be considered a water quality standard under section 303(a) of the Act since it concerns requirements for design, location, etc., of a portion of a point source of discharge rather than standards for ambient water quality. Moreover, the provisions of § 704.5 will be implemented by the permitting Agency in accordance with section 316(b) of the Act and associated federal regulations promulgated pursuant to that, and other, sections of the Act. Since § 704.5 is superfluous, it has been exempted from consideration under this 303(a) approval.

Sections 704.4 and 704.6, in essence, authorize exemption of certain dischargers from application of the criteria contained in §§ 704.2 and 704.3 on the

grounds of age, unless the permitting agency has available to it evidence that particular discharges are responsible for environmental harm such that the protection and propagation of a balanced indigenous aquatic population is no longer assured. Section 316(a) of the Act requires the discharger to sustain the burden of proof that his thermal discharge does not harm a balanced, indigenous aquatic population, in order to obtain a variance. The effect of §§ 704.4 and 704.6 is to reverse this burden of proof. Such restrictions on the application of water quality criteria are not consistent with the provisions of sections 301, 303 and 316(a) of the Act and do not, taken together with § 704.1, constitute water quality standards for the dischargers thus entitled to such specialized treatment.

Approval of those portions of part 704 which do constitute water quality standards will ensure the consistent application of criteria to point sources whose discharge contains a thermal component, will eliminate elements which are redundant or which address aspects not regulated by water quality standards, and will provide for consistency with all Federal statutory provisions. Furthermore, the water quality criteria which the EPA has approved are judged to be reasonably supportive of the associated water uses to which they are assigned. This position in no way infringes upon the right of a thermal discharger to seek and be permitted, where justified pursuant to section 316(a) of the Act and 40 CFR Part 122 (39 FR 36175-36184, October 8, 1974), effluent limitations less stringent than would be required to meet the numerical or other criteria of part 704, nor does it preclude the possibility of an existing discharger being permitted, again where justified, to continue operating with no additional limitations where such is consistent with national water quality goals. The EPA believes that the existing Federal statutory and regulatory provisions are adequate for the equitable allocation of thermal effluent limitations to individual dischargers on a case-by-case basis.

The EPA is not disapproving any of the water quality criteria or uses adopted by New York State. Thus, it is not necessary for EPA to promulgate water quality standards as a result of its exempting from consideration portions of part 704. Accordingly, it has been determined that public notice and comment are not necessary.

The complete standards document setting forth the New York State standards, as approved by EPA on February 23, 1975, is available for inspection and copying at the U.S. Environmental Protection Agency, 26 Federal Plaza, New York, N.Y. 10007 and through the New York State Department of Environmental Conservation, 50 Wolf Road, Albany, New York 12233. U.S. EPA regulation 40 CFR Part 2, provides that a fee may be charged for making copies.

In consideration of the foregoing, § 120.10 of 40 CFR Part 120 is amended by revision the paragraph entitled "New York" to read as follows:

#### § 120.10 Standards adopted.

##### NEW YORK

Water quality standards established by New York for waters subject to its jurisdiction and which are contained in the following documents:

1. Interstate Waters, Classifications, Water Quality Standards and Criteria and Implementation Plan for the Delaware River Drainage Basin, Volume I, November 1966;
2. Interstate Waters, Classifications, Water Quality Standards and Criteria and Implementation and Enforcement Plan for the Susquehanna River Drainage Basin, Volume III, May 1967;
3. Interstate Waters, Classifications, Water Quality Standards and Criteria and Implementation and Enforcement Plan for the St. Lawrence River Basin, Volume III, May 1967;
4. Interstate Waters, Classification, Water Quality Standards and Criteria and Implementation Plan for the Lake Ontario Basin, Volume IV, June 1967;
5. Interstate Waters, Classifications, Water Quality Standards and Criteria and Implementation and Enforcement Plan for the Hudson River Basin, Volume V, June 1967;
6. Interstate Waters, Classifications, Water Quality Standards and Criteria and Implementation and Enforcement Plan for the Lake Erie-Niagara River Basin, Volume VI, June 1967;
7. Interstate Waters, Classifications, Water Quality Standards and Criteria and Implementation and Enforcement Plan for the Allegheny River Basin, Volume VII, June 1967;
8. Interstate Waters, Classifications, Water Quality Standards and Criteria and Implementation and Enforcement Plan for the Coastal Waters of New York State, Volume VIII, June 1967;

together with all appendices and attachments thereto, all of which as amended, and including the antidegradation statement adopted on May 7, 1970, and including the document entitled "Classifications and Standards of Quality and Purity", title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6NYCRR), parts 700, 701 and 702 as amended, adopted on February 23, 1974, and parts 800 through 941, all of which as approved by the Environmental Protection Agency on May 8, 1974, and including amendments to parts 701 and 702 and part 704 of 6NYCRR as amended, adopted on September 20, 1974, except that the EPA exempts from consideration sections 704.4, 704.5 and 704.6 and those provisions of sections 704.1, 704.2 and 704.3 permitting exceptions to criteria pursuant to section 704.6, as approved by the Environmental Protection Agency on February 23, 1975.

(Sec. 303 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1313 (a)); 86 Stat. 816 et seq.; Pub. L. 92-500)

Dated: March 19, 1975.

RUSSELL E. TRAIN,  
Administrator.

[FR Doc. 75-7605 Filed 3-24-75; 8:45 am.]

8 Letter to Governor Rockefeller from Secretary  
Udall, dated July 18, 1967.

7/18/67

Dear Governor Rockefeller:

I am pleased to inform you that the water quality criteria and plan of implementation for the interstate waters of the Delaware River Basin in New York have been reviewed; and I am approving these as Federal standards under the Federal Water Pollution Control Act, as amended. Successful implementation of the program set forth in these standards should achieve our mutual goal of protecting the quality and productivity of the interstate waters of this basin. My staff will be in touch with your water pollution control staff concerning ways in which we can cooperate in carrying out the objectives of this program.

In addition, we have also completed our review of the water quality criteria and plans of implementation submitted by New York for the interstate waters of the Susquehanna River Basin, St. Lawrence River Basin, Lake Ontario Basin, and Lake Erie-Niagara Basin. We have found that the criteria and plans reflect an impressive effort. In general, these set forth realistic and workable programs.

I would like to give approval to these criteria and plans as Federal standards at an early date. However, before this can be done, there are a few significant issues which must be resolved. With the hope of securing agreement on approvable standards, I am asking the Federal Water Pollution Control Administration Regional Director in Boston, Massachusetts, to contact your water pollution control staff. Among the items requiring discussion are the following:

1. Numerical temperature criteria for protection of aquatic life;
2. Classification of certain rivers and harbors;
3. Consistency with recommendations of the Lake Erie Federal Enforcement Conference concerning removal of nutrients.

Once again, I wish to congratulate you on a job well done. I sincerely hope this discussion between our staffs will result in

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Udall, dated July 18, 1967.

standards that I can approve for the interstate waters of the Susquehanna, St. Lawrence, Lake Ontario, and Lake Erie-Niagara River Basins. It is important that an agreement be reached as soon as possible so that the joint State-Federal water pollution control effort can move forward in these areas.

Sincerely yours,

Secretary of the Interior

Honorable Nelson A. Rockefeller  
Governor of New York  
Albany, New York 12223

cc: Secy. Files  
Secy. Reading Files  
Asst. Sec. for WPC  
Regional Director, NE Region  
State water pollution control agency  
C. Pierce  
A. Hirsch  
Commissioner, Deputy Commissioner

RWHammer:ajs PFW 7-11-67

9 Letter to James A. Quigley, from Dwight F. Metzler,  
dated August 4, 1967.

AUG 7 REC'D



DWIGHT F. METZLER, P. E.  
DEPUTY COMMISSIONER

STATE OF NEW YORK  
DEPARTMENT OF HEALTH  
ALBANY

August 4, 1967

Honorable James A. Quigley, Commissioner  
Federal Water Pollution Control Administration  
633 Indiana Avenue, N.W.  
Washington, D.C. 20242

Attn: Mr. James Agee, Water Quality  
Standards Coordinator

Dear Commissioner Quigley:

The purpose of this letter is to review with you the determinations and agreements made with your representatives, Mr. Robert Burd and Mr. Paul DeFalco, at the time of a conference with us regarding New York State's water quality standard reports, on August 1, 1967.

Details regarding specific aspects of the conference are as follows:

1. Coliform Standards. Attached are copies of the New York State statute, as most recently amended, pertaining to permissible coliform levels for various water use. Note that a maximum coliform index has been set, test frequency outlined, and that the method for averaging results is presented. This statute is a valid portion of our water quality criteria since it was duly enacted by the Legislature.
2. Thermal Pollution. In accordance with the verbal request of your representatives, we have also enclosed copies of our policy pertaining to control of thermal pollution by municipal and industrial discharges. The thermal criteria presented is that used in the review of all applications made for new or altered discharges to the waters of the state. These criteria have been reviewed by the fish and aquatic experts of our Conservation Department.
3. Federal Enforcement Conferences. To provide clarity and emphasis to our water quality standard reports, we request that the following statement be added as the last sentence of the last paragraph of the Introduction, Section I, of all

9 Letter to James A. Quigley, from Dwight F. Metzler,  
dated August 4, 1967.

report volumes submitted to you earlier: "The State has participated in federal enforcement conferences conducted in accordance with the procedures described in Section 10 (33 USC 466g) of the Federal Water Pollution Control Act, as amended (33 USC 466 et seq), for its Lake Erie, Hudson River, Moriches Bay and Raritan Bay drainage basins. As a conferee at each of these proceedings, the State has endorsed the conclusions and recommendations reached at the conferences. The State will carry out its responsibilities as a conferee at the re-opening of conferences in the formulation, endorsement, or modification of the conclusions and recommendations of such conferences."

4. Downgrading of Existing Water Quality. The assignment of class C and D to surface waters has not resulted in the downgrading of existing water quality. Actually, the classification assignment satisfies the broad classification requirement of the State statutes, whereas the governing factor associated with waste discharge treatment is controlled by plan review procedures and, more particularly, the requirements for degree of treatment and chlorination. Uniformly applied treatment requirements override classification assignments. Refer to Appendix 42 regarding effluent chlorination policies and to Appendix 8 pertaining to degree of treatment. With respect to the requirements of Appendix 8, the Department policy is to require secondary treatment of municipal waste and equivalent treatment for industrial wastes, AS A MINIMUM FOR ALL CLASSES OF WATER IN THE STATE.
5. Harbor Areas. The C classification of harbor areas, specifically Black River Bay, Oswego, Rochester, Barcelona and Dunkirk harbors, was discussed from the standpoint that a B classification might be assigned. It was reported to your representatives that the C classification applied to the bay or harbor limits; that the use of these waters was for formal harbor purposes, including state, interstate and international vessel traffic, fishing fleet harborage and general docking facilities, all of which do not lend themselves to areas recommended for water contact recreation such as wading, bathing or water skiing.
6. Omission of Construction Completion Dates in Enforcement Program Tables. Ordered or voluntary construction dates not specified will fall within the schedules established by any federal enforcement conference and within the Pure Waters Program end date - March 31, 1972. Negotiations are under way, or will be under way shortly, for those polluters designated as abatement status "B" (hearing noticed) and "C" (hearing to be noticed during 1967). Polluters

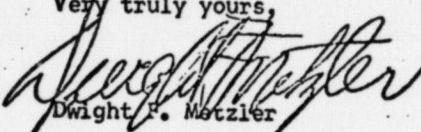
9 Letter to James A. Quigley, from Dwight F. Metzler,  
dated August 4, 1967.

designated as "D" are presently under voluntary compliance to install necessary facilities by March 31, 1972. Many of these polluters will be noticed after 1967 to establish finite ordered schedules. Schedules established by Commissioner's Orders will be routinely submitted.

7. Waste Source Listing in Enforcement Program Tables. A review of the listings provided to us at the conference has been completed. We concur that Columbus McKinnon, General Mills, Pennsylvania Railroad Shop and Tonawanda Iron Company be added to Appendix 26, Volume VI, Lake Erie-Niagara River Basin. Details regarding these are attached. The remainder of the listing provided do not affect interstate waters.
8. Reclassifications. The State is actively reviewing all classifications, including intra-state classifications, with the objective of upgrading and enhancing water quality. This is an on-going program which resulted in a number of upward reclassifications during the past year. Formal procedures for reclassification hearings have been adopted and are in actual use.
9. Special Class II Classifications. For purposes of clarification to your representatives, item 3 of Special Class II assigned to portions of the New York City Harbor was defined as requiring a minimum of 2.5 parts of dissolved oxygen. This oxygen level will be used in the consideration of discharge permit applications submitted for the review and approval by the State Health Department.

This review covers the significant features of the conference with your representatives. It is sent to you within the time limitations specified at the conference. The excellent assistance provided to us by Messrs. Burd and DeFalco is gratefully acknowledged.

Very truly yours,



Dwight F. Metzler

Attachments

cc: Mr. DeFalco  
Mr. Klashman  
Mr. Hennigan  
Mr. Poston, attn: Mr. Printz

9 Letter to James A. Quigley, from Dwight F. Metzler,  
dated August 4, 1967.

Columbus McKinnon - Tonawanda (C), Erie County

Receiving Waters: Ellicott Creek  
Effluent: Primary  
Effluent Type: Metal Processing  
Ownership: Corporate  
Pop. or Flow: 0.25 mgd  
Abatement Status: D-4  
Ordered Construction Completed:  
Voluntary Construction Completed: 1/1/70

General Mills - Buffalo (C), Erie County

Receiving Waters: Buffalo River  
Effluent: Raw  
Effluent Type: Sanitary  
Ownership: Corporate  
Pop. or Flow: 850  
Abatement Status: D-2  
Ordered Construction Completed:  
Voluntary Construction Completed: 1/1/70

Pennsylvania Railroad Shop - West Seneca (T), Erie County

Receiving Waters: Buffalo Creek  
Effluent: Primary  
Effluent Type: Oil and Sanitary  
Ownership: Corporate  
Pop. or Flow: Variable  
Abatement Status: A-6  
Ordered Construction Completed: 1/1/68  
Voluntary Construction Completed:

Tonawanda Iron Company - North Tonawanda (C), Niagara County

Receiving Waters: Niagara River  
Effluent: Primary  
Effluent Type: Steel Manufacturing  
Ownership: Corporate  
Pop. or Flow: 1.5 mgd  
Abatement Status: D-3  
Ordered Construction Completed:  
Voluntary Construction Completed: 1/1/70

Attachment 1—Technical Bulletin No. 36, dated  
August 4, 1967.

ENVIRONMENTAL HEALTH SERVICES

HOLLIS S. INGRAHAM, M.D.  
COMMISSIONER

STATE OF NEW YORK  
DEPARTMENT OF HEALTH

WRIGHT F. METZLER, P.E.  
DEPUTY COMMISSIONER

84 HOLLAND AVENUE  
ALBANY, NEW YORK 12208

DIVISION OF PUBLIC WATERS  
ROBERT D. HENRIGAN, P.E.  
ASSISTANT COMMISSIONER

August 4, 1967

**TO:** Engineering Firms Practicing in New York State  
**SUBJECT:** Thermal Aspects of Discharges on Water Resources  
(Technical Bulletin No. 36)

To protect water resources, fishlife, and stream biota from effects of transient and long-range adverse temperature changes, careful studies of stream environment should be conducted where discharges of thermal significance are contemplated.

Such studies might include, but not be limited to:

- (a) natural background conditions of temperature, ecology, base flow, and physical and biological character of receiving waters
- (b) stream geology, hydrology, tides, currents, and man-made barriers
- (c) climate, winds, critical summer temperatures, and general meteorological conditions
- (d) effects upon assimilative capacity of receiving waters
- (e) stratification of heated liquids
- (f) need for full-channel or part-channel diffusion works
- (g) heat transfer calculations, against environmental factors determined above, to assess magnitude of expected change in receiving water quality.

Attachment 1—Technical Bulletin No. 36, dated  
August 4, 1967.

Engineering Firms Practicing in  
New York State

-2-

August 4, 1967

These factors should be evaluated against the following criteria:

Trout Waters

No thermal discharges will be permitted to waters classified for trout, stocked with trout, or supporting a naturally occurring propagation of trout, or in upstream reaches of such waters as would cause adverse effects thereon.

Non-Trout Waters

1. Mixing Zone - The mixing zone will be separately determined for each discharge so as to minimize detrimental effects. Fish and other aquatic life shall be protected from thermal blocks by providing for a minimum fifty percent stream or estuarine cross-section and/or volumetric passageway, or establishing artificial fishways where considered necessary.

Generally, the surface water temperature shall not exceed 90°F within the mixing zone. Consideration will be given to effects of each discharge based on hydrodynamics and other factors of receiving waters.

2. Outside Mixing Zone - Stream temperatures in excess of 86°F will not be permitted after mixing. Further, no permanent change in excess of 5°F will be permitted from naturally occurring background temperatures.

In multiple discharge situations stream capacity to meet such criteria will be apportioned among the discharges.

3. Outside Mixing Zone: Fresh Surface Water Classes  
Temperature change rate shall be limited to 2°F per hour, not to exceed 9°F in any 24-hour period, further limited in that for any seven day period the average change will meet the 5°F change of background criteria stated in item 2 above.

4. Outside Mixing Zone: Tidal Salt Water Classes  
Discharges shall not raise monthly means of maximum daily temperatures more than 4°F from September through May, nor more than 1.5°F during June, July, and August.

Temperature change shall not be more than 1°F per hour, not to exceed 7°F in any 24-hour period at maximum, except when natural phenomena cause these limits to be exceeded.

Attachment 1—Technical Bulletin No. 36, dated  
August 4, 1967.

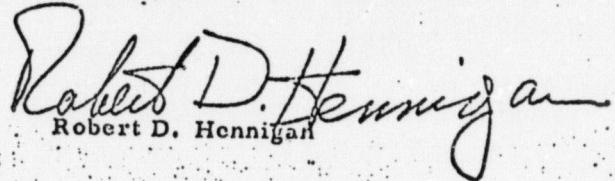
Engineering Firms Practicing in  
New York State

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August 4, 1967

Where necessary, cooling towers or other devices must be installed to meet these stream criteria. The State Conservation Department will act as a consultant to the Health Department insofar as fish life and aquatic biota are concerned.

This Bulletin was developed to advise and provide guidance to engineering firms, industries and others of water quality objectives and requirements for thermal aspects of discharges to the surface waters of New York State.

  
Robert D. Hennigan

Reference: Interim Report of the National Advisory Committee to the Federal Water Pollution Control Administration on Water Quality Criteria, June 30, 1967.

Credit: Thomas E. Quinn  
Sewage Facility Section

Attachment 2—Document—Intro 4892, dated February  
15, 1967.

STATE OF NEW YORK

Print 5142

Intro. 4892

**IN ASSEMBLY**

February 15, 1967

Introduced by Mr. W. L. BURNS—Multi-Sponsored by—Messrs.  
HAUSBECK, MELTON—read once and referred to the Com-  
mittee on Health

**AN ACT**

To amend the public health law, in relation to the extent to which organisms of the coliform group are permitted in classified waters of the state, and repealing paragraph (c) of subdivision five of section twelve hundred five of such law relating thereto

*The People of the State of New York, represented in Senate and Assembly, do enact as follows:*

- 2 Section 1. Paragraph (e) of subdivision five of section twelve  
3 hundred five of the public health law is hereby repealed and a  
4 new paragraph, to be paragraph (e), is hereby inserted therin  
5 in place thereof, to read as follows:  
6 (e) *Organisms of the coliform group or any other organisms*  
7 *from wastes of animal or human origin shall not exceed the follow-*  
8 *ing prescribed standards for usage of the classified waters of*  
*the state:*

EXPLANATION—Matter in italics is new; matter in brackets [ ] is old law to be omitted.

Attachment 2—Document—Intro 4892, dated February  
15, 1967.

2

- 1     (i) Sources of water supply for drinking, culinary or food processing purposes which, if subjected to approved disinfection treatment, with additional treatment if necessary to remove naturally present impurities, meet or will meet New York state health department drinking water standards and any other usages: For such sources the monthly median coliform value for one hundred ml of sample shall not exceed fifty from a minimum of five examinations and provided that not more than twenty percent of the samples shall exceed a coliform value of two hundred forty for one hundred ml of sample.
- 11    (ii) Sources of water supply for drinking, culinary or food processing purposes which, if subjected to approved treatment equal to coagulation, sedimentation, filtration and disinfection, with additional treatment if necessary to reduce naturally present impurities, will meet New York state department of health drinking water standards; bathing, fishing, boating, and any other usages: For such sources the monthly median coliform value for one hundred ml of sample shall not exceed five thousand from a minimum of five examinations and provided that not more than twenty percent of the samples shall exceed a coliform value of twenty thousand for one hundred ml of sample.
- 22    (iii) Sources of water for bathing, fishing, boating, and any other usages except shellfishing for market purposes in tidal salt waters: For such sources the monthly median coliform value for one hundred ml of sample shall not exceed two thousand four hundred from a minimum of five examinations and provided that not more than twenty percent of the samples shall exceed a coli-

Attachment 2—Document—Intro 4892, dated February  
15, 1967.

5

1 form value of five thousand for one hundred ml of sample and  
2 provided further that surface waters receiving treated sewage  
3 discharges which pass through residential communities where there  
4 is a potential exposure of population to the surface waters shall  
5 be protected by the requirement that all effluents from sewage  
6 treatment plants shall be adequately disinfected prior to dis-  
7 charge into the surface waters in order that the monthly median  
8 coliform value for one hundred ml of sample shall not exceed  
9 two thousand four hundred from a minimum of five examinations  
10 and provided that not more than twenty percent of the samples  
11 shall exceed a coliform value of five thousand for one hundred ml  
12 of sample.

13 (iv) Sources of water for shellfishing for market purposes and  
14 any other usages of tidal salt waters: Median MPN not to exceed  
15 seventy coliform organisms per one hundred milliliter sample in  
16 a series of four or more samples collected during any thirty-day  
17 period in the waters of a shellfishing area, and not exceeding in  
18 more than ten percent of the samples collected during the period  
19 an MPN of two hundred thirty coliform organisms per one hun-  
20 dred milliliters for a five-tube, or an MPN of three hundred thirty  
21 per one hundred milliliters for a three-tube decimal dilution test  
22 in those areas most probably exposed to fecal contamination during  
23 the most unfavorable hydrographic conditions.

24 (v) All samples shall be collected, analyzed, and reported in a  
25 manner satisfactory to the state commissioner of health.

26 (vi) When the above prescribed standards are exceeded the com-  
27 missioner shall make an investigation to determine the source or

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15, 1967.

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- 1 sources of pollution. When it shall appear to the commissioner  
2 after investigation, that there has been a violation of any of the  
3 provisions of this article he shall take further proceedings as  
4 provided in section twelve hundred forty-two of this article.  
5 (vii) The water resources commission may adopt and assign  
6 more restrictive standards for the best usages of the waters of  
7 the state.  
8 § 2. This act shall take effect immediately.

- 12 Letter to Governor Rockefeller from Secretary Udall, dated August 7, 1967.

35.0991

foguel

H. Falco  
Kashman

AUG 7 1967



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
OFFICE OF THE SECRETARY  
WASHINGTON, D.C. 20240

RWHammerick - PFW - 8/3/67

Dear Governor Rockefeller:

On July 18, 1967, I wrote you that the water quality criteria and implementation plan submitted by New York for the Delaware River Basin were approved. I am pleased to inform you that I am now approving all of the other criteria and plans submitted by New York for its interstate and coastal waters as Federal standards under the Federal Water Pollution Control Act, as amended. These are the Hudson River Basin, Susquehanna River Basin, St. Lawrence River Basin, Allegheny River Basin, Lake Ontario Basin, Lake Erie-Niagara River Basin, and Coastal Waters submissions.

*Paper clip*

In my letter of July 18, I noted a few significant issues in the criteria and plans for some of these waters which had to be resolved between our water pollution control staffs before these submissions could be approved as Federal standards. Our staffs have met and reached agreement on the necessary revisions. It is with this understanding that I am prepared to approve all of New York's water quality criteria and plans at this time.

Your State is to be highly commended on its development of an effective water quality standards program. We look forward to working with you and your water pollution control staff in carrying out the objectives of this program.

Sincerely yours,

*M. G. G.*  
Secretary of the Interior

Honorable Nelson A. Rockefeller  
Governor of New York  
Albany, New York 12225  
cc: Secy. Files  
Secy. Reading Files(2)  
Asst. Secy. for WPC

26 Letter to Klashman from Metzler, dated July 31, 1969.

WQS

*Rygel  
7/14*



STATE OF NEW YORK  
DEPARTMENT OF HEALTH  
ALBANY

DWIGHT F. METZLER, P.E.  
DEPUTY COMMISSIONER

July 31, 1969

Mr. Lester Klashman, Regional Director  
Federal Water Pollution Control Administration  
United States Department of the Interior  
John F. Kennedy Federal Building  
Boston, Massachusetts 02203

Dear Les:

This is to confirm the information you received on Friday via telephone. The Water Resources Commission that day unanimously adopted Thermal Criteria for our surface waters and the Rules and Regulations for the implementation of the same. There were some minor changes requested in the Rules and Regulations prior to adoption.

Attached are six copies of each. The changes requested in the Rules and Regulations have been made in ink. It would be appreciated if you would notify your Washington office of this action.

I have discussed these informally with Commissioner Dominick and hope that you will support the acceptance of these criteria as federal standards.

Sincerely,

*Dwight F. Metzler*  
Dwight F. Metzler, P.E.  
Deputy Commissioner

Attachments

cc: Deinoros  
E. Deinoros  
T-3  
H-4

*cc: Deinoros  
E. Deinoros  
7/15/69-jmd*

Attachment 1—Criteria Governing Thermal Discharges, dated July 16, 1969.

July 16, 1969

CRITERIA GOVERNING THERMAL DISCHARGES  
(Heated Liquids)

The standards for Thermal Discharges (heated liquids) to the waters of the state are "None alone or in combination with other substances or wastes in sufficient amounts or at such temperatures as to be injurious to fish life ... or impair the waters for any other best usage ..." (6NYCRR 701.3 et seq.) and shall be applied, under Water Pollution Control Act, Public Health Law Article 12 as follows:

Definitions

1. A thermal discharge is one which is at a temperature greater than 70°F. A discharge at a lower temperature will also be a thermal discharge if it results in a temperature rise of the receiving water above the permissible temperature rises listed below.
2. The term "addition of heat of artificial origin" as used throughout the criteria shall include all heat from other than natural sources. In the event of multiple discharges, consideration shall be given to the cumulative effects of such discharges.
3. Coastal waters are those marine waters within the territorial limits of the state other than estuaries.<sup>1</sup>
4. Estuaries are the tidal portions of all rivers and streams, the bays of the southshore of Long Island and Peconic Bay.<sup>1</sup>

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<sup>1</sup> The waters of Long Island Sound and its bays or portions thereof have characteristics of either coastal waters and/or estuaries. The criteria to be applied to any particular project will depend upon the site location and all other relevant facts. The applicable criteria will be determined as provided in Paragraphs 1 and 2 of "Additional Limitations or Modifications".

Attachment 1—Criteria Governing Thermal Discharges, dated July 16, 1969.

FRESH WATERS

STREAMS

NON-TROUT  
WATERS

- The water temperature at the surface of a stream shall not be raised to more than 90°F at any point. Further, at least 50 percent of the cross sectional area and/or volume of the flow of the stream including a minimum of 1/3 of the surface as measured from shore to shore shall not be raised to more than 5°F over the temperature that existed before the addition of heat of artificial origin or to a maximum of 86°F whichever is less,<sup>2</sup> except during periods of the year when stream temperatures are below 39°F. A greater than 5°F increase may be authorized under "Additional Limitations or Modifications" (post). For the protection of the aquatic biota from severe temperature changes, routine shut down of an entire thermal discharge at any site should not be scheduled during the period from December through March.

TROUT  
WATERS

- No discharges at a temperature over 70°F will be permitted at any time to streams classified for trout. From June through September, no discharges at any temperature will be permitted that will raise the temperature of the stream more than 2°F over that which existed before the addition of heat of artificial origin. From October through May, no discharges at any temperature will be permitted that will

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<sup>2</sup>It is recognized that because of widely varying conditions in streams and estuaries, the Commissioner will establish, where necessary to meet the standards for thermal discharges, a lower maximum surface water temperature and a greater zone of passage under the procedures set forth in "Additional Limitations or Modifications".

Attachment 1—Criteria Governing Thermal Discharges, dated July 16, 1969.

raise the temperature of the stream more than 5°F over that which existed before the addition of heat of artificial origin or to a maximum of 50°F whichever is less.

LAKES

- The water temperature at the surface of a lake shall not be raised more than 3°F over the temperature that existed before the addition of heat of artificial origin, except that within a radius of 300 feet or equivalent area<sup>3</sup> from the point of discharge, this temperature may be exceeded. In lakes subject to stratification, the thermal discharges shall be confined to the epilimnetic area.

COASTAL WATERS

- The water temperature at the surface of coastal waters shall not be raised more than 4°F over the monthly means of maximum daily temperatures from October through June nor more than 1.5°F from July through September except that within a radius of 300 feet or equivalent area<sup>3</sup> from the point of discharge this temperature may be exceeded.

ESTUARIES OR PORTIONS OF ESTUARIES

- The water temperature at the surface of an estuary shall not be raised to more than 90°F at any point provided further, at least 50 percent of the cross sectional area and/or volume of the flow of the estuary including a minimum of 1/3 of the surface as measured from water edge

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<sup>3</sup>It is recognized that a radius of 300 feet or equivalent area may be too liberal or too restrictive and that a lesser or a greater area may be required or permitted under the procedures set forth in "Additional Limitations or Modifications".

Attachment 1—Criteria Governing Thermal Discharges, dated July 16, 1969.

to water edge at any stage of tide, shall not be raised to more than 4°F over the temperature that existed before the addition of heat of artificial origin or a maximum of 83°F, whichever is less.<sup>2</sup> However, during July through September if the water temperature at the surface of an estuary before the addition of heat of artificial origin is more than 83°F, an increase in temperature not to exceed 1.5°F, at any point of the estuarine passageway as delineated above, may be permitted.

ADDITIONAL LIMITATIONS OR MODIFICATIONS

1. The Commissioner of Health may impose limitations and/or conditions in addition to the stated criteria where he determines, in the exercise of his discretion, that such additional limitations and/or conditions are necessary to maintain the quality of the receiving waters for the "best usage" classifications and standards assigned by the Water Resources Commission pursuant to Public Health Law, Article 12, § 1205.
2. The Commissioner may authorize a conditional modification of the stated criteria upon application. Upon receipt of such application the Commission shall confer with the Federal Water Pollution Control Administration and shall transmit to that agency information to enable the Secretary of the Interior to fulfill his responsibilities under Federal law. The applicant shall have the burden of establishing to the satisfaction of the Commissioner of Health that one or more of the criteria are unnecessarily restrictive as to a particular project in that a modification of such criterion, or criteria, as the case may be, would not impair the quality of the receiving waters so as to adversely affect them for the "best usage" classifications and

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<sup>2</sup>See Ante

Attachment 1—Criteria Governing Thermal Discharges, dated July 16, 1969.

standards assigned by the Water Resources Commission. The Commissioner may, when he determines it to be in the public interest, hold a public hearing upon the application.

3. Any such modification shall be conditioned upon post-operational experience. Plans for additional treatment of, or change in, the thermal discharge shall be developed and submitted as part of the application to the Commissioner which shall be implemented upon order of the Commissioner in the event that post-operational experience shows a trend toward impairment by the discharge of the quality of the receiving waters for the assigned "best usage" classifications and standards.

RULES AND REGULATIONS

The Commissioner may adopt rules and regulations with the approval of the Water Resources Commission governing the procedures prescribed or authorized herein. Such rules and regulations may include the methods and procedures for the making of tests and analytical determinations hereunder and the notice and hearing procedure to be followed in administering "Additional Limitations or Modifications", above.

EXTENT OF APPLICABILITY OF CRITERIA TO EXISTING DISCHARGES

In determining whether a discharge existing prior to the adoption of the above criteria complies with the applicable standard for thermal discharges ('None alone or in combination with other substances or wastes in sufficient amounts or at such temperature as to be injurious to fish life ... or impair the waters for any other best usage ...' (6NYCRR 701.3 et seq.)), these criteria are intended only to be a frame of reference.

Attachment 1—Criteria Governing Thermal Discharges, dated July 16, 1969.

Moreover, the procedures described in Public Health Law, § 1223, shall apply in any application of the criteria to discharges existing prior to the adoption of these criteria without regard to whether such discharges began prior to or subsequent to the enactment of this State's Water Pollution Control Act, (now Public Health Law, Article 12).

Attachment 1—Criteria Governing Thermal Discharges, dated July 16, 1969.

NOTE: PRESENT TITLE of PART 73 to be changed to "Approval of Plans and Issuance of Permits under Public Health Law, Article 12, Title V" (10 NYCRR, Part 73)

AMEND 10 NYCRR, PART 73 BY ADDING NEW §§ 73.9, et.seq., as follows:

Section 73.9 Title: - Additional rules and regulations applicable to thermal discharges, promulgated pursuant to "Criteria Governing Thermal Discharge (Heated Liquids)", adopted by the Water Resources Commission (NYCRR).

<sup>18</sup>  
73.~~10~~ Waiver of Rules

Since rules strictly applicable to all of the varied projects which come before the Commissioner cannot be devised, the Commissioner reserves the right to waive rules and to require additional information in any particular case. Statutory requirements cannot be waived and rules must be complied with unless the Commissioner permits other action.

<sup>10</sup>  
73.~~11~~ Definitions: The definitions set forth in the Criteria and the following definitions shall apply, unless the context otherwise requires:

- A. Water Temperature At the Surface - The water temperature at the surface is a maximum ecologically significant temperature of the water as measured within a depth of one foot from the water surface.
- B. Thermal Barrier or Block - Any barrier, caused by temperature differentials, which will result in obstructing migration and free movement of aquatic biota, is considered a thermal barrier or block.
- C. Multiple Discharges - Multiple discharges shall include a number of outlets (including multiports), either from the same

Attachment 1—Criteria Governing Thermal Discharges, dated July 16, 1969.

plant or from different plants, discharging heated waters in the receiving waters.

- D. Aquatic Biota - Aquatic biota shall include aquatic flora and fauna.
- E. Equivalent Area - Equivalent area shall mean a surface area equal to that of a circle of a specified radius.
- F. Commission - Commission shall mean the Water Resources Commission of the State of New York.
- G. Commissioner - Commissioner shall mean the Commissioner of Health of the State of New York.
- H. Conservation Commissioner - Conservation Commissioner shall mean the Conservation Commissioner of the State of New York.
- I. Post-operational Experience - Post-operational experience shall mean the effects of thermal discharges on the water temperature of, and the ecology in, the affected waters.
- J. Additional Treatment of, or change in, a Thermal Discharge - Additional treatment of a thermal discharge includes, but is not limited, to utilization of cooling devices (e.g. cooling ponds, spray ponds, evaporative or non-evaporative cooling towers) and/or dilution of heated waters with cooler waters prior to discharge into receiving waters. A change in a thermal discharge may include an alteration of the outlet configuration (e.g. subsurface discharges, jet or multiport discharges) and/or a reduction in the cause of a thermal pollution or a decrease in the power output.

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- K. Stratified Lake - A stratified lake is a lake where an epilimnion, thermocline and hypolimnion are present naturally during summer periods due to differences in densities of water found at various depths of the lake.
- L. Thermocline - A thermocline is that first seasonally stable layer of a stratified lake found between the epilimnion and the hypolimnion where the temperature drop equals or exceeds 1°C (1.8°F) per meter (39.37 inches).
- M. Epilimnion - Epilimnion is that layer of a stratified lake lying above the thermocline which is warm, more or less freely circulating, affected by wind action and of approximately uniform temperature.
- N. Hypolimnion - Hypolimnion is that layer of a stratified lake below the thermocline.

73.22 Implementation of Criteria: -

- A. No person, public or private corporation, political subdivision, governmental agency, or any other legal entity whatsoever, shall: (1) construct on outlet for a thermal discharge; or (2) make a thermal discharge, directly or indirectly, into the waters of the State, without first having secured the construction and operating permits as provided in Part 73 entitled "Approval of Plans and Issuance of Permits under Public Health Law, Article 12, Title V".
- B. The Commissioner shall issue permits, as provided in "A" above upon such conditions as he may direct, where the discharge will

Attachment 1—Criteria Governing Thermal Discharges, dated July 16, 1969.

meet or meets the applicable standards for thermal discharges ("None alone or in combination with other substances or wastes in sufficient amounts or at such temperatures as to be injurious to fish life...or impair waters for any other best usage..."

6 NYCRR 701.3, et seq.) in accordance with the guidelines and provisions set forth in "Criteria Governing Thermal Discharges (Heated Liquids)"--NYCRR--. The Commissioner shall consult with the Conservation Commissioner in regard to the biological and ecological effects of the thermal discharge.

<sup>12</sup>  
73.12

Reports Required

Applications and Post-operational Experience: - Applications for permits required in §73.12, "A" above, shall be made on forms provided by the Commissioner and shall be supported in all cases by the information required in "I" below. The Commissioner, in his discretion, may require any or all the additional information set forth in "II" and "III" below upon any particular project where the information contained in the reports required in "I" indicate that such additional information is necessary for the Commissioner to evaluate the effect of the discharge. Such additional information shall be submitted to the Commissioner, depending upon the particular project, at such time or times as he may direct. The Commissioner may also require the submission of reports of the post-operational surveys and experience in the operation of any particular project.

Attachment 1—Criteria Governing Thermal Discharges, dated July 16, 1969.

Each engineering report shall be prepared by a professional engineer, authorized to practice professional engineering in the State of New York.

Each ecological report shall be prepared by a qualified biologist.

I. Required Engineering Information:

- (1) Size and location of facility;
- (2) Cooling water and/or process water requirements - volume, temperature, flow and source;
- (3) Characteristics of the discharge - volume, temperature and flow;
- (4) Name, location, hydrology and temperature data of receiving waters;
- (5) Design, details and type of outlet. (This shall include: surface or subsurface discharges, single port or multi-port discharges, velocity of discharge, etc.)

II. Supplementary Engineering Information

The additional information necessary for the evaluation of the effects of thermal discharge upon the receiving waters may include, but is not limited to, the following:

- (1) Meteorological data of the area;
- (2) Tri-axial temperature prediction model by means of which temperature rises in vertical, lateral and longitudinal directions can be predicted with a reasonable degree of accuracy. (Assumptions used for temperature prediction will be clearly stated as such in the report);
- (3) Thermal stratification resulting from heated discharges.

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III. Ecological Information

The ecological information necessary for the evaluation of the effects of the thermal discharge upon the receiving waters and its ecology may include, but is not limited to, the following:

- (1) Type and number of aquatic species of vertebrates and non-vertebrates, indigenous to and/or present in the receiving waters at and in the vicinity of the thermal discharge, with the longitudinal, vertical and lateral distribution of these biota;
- (2) Projected effects of the temperature variations on the rooted vegetations, microorganisms, plankton and benthic (bottom) organisms;
- (3) Adverse effects on the aquatic biota resulting from the thermal discharge in conjunction with the dissolved oxygen and other chemicals present in the discharge ~~of~~ receiving waters;
- (4) Location of any spawning areas in the affected waters;
- (5) Median lethal temperatures for the species of fish indigenous to or present in the waters together with their temperature preferenda.

<sup>13</sup>  
73. ~~44~~ Collection of Samples -

Samples which are required shall be collected in accordance with accepted engineering and biological procedures in sufficient numbers and at such locations and at such times as to make the reports herein required complete and meaningful as to the effects of the discharges upon the receiving waters. Where there are no standardized, accepted engineering procedures for collecting samples, the procedures to be followed shall be approved by the Commissioner. Where there are no accepted, standardized biological procedures for collecting samples, the procedures to be followed shall be approved by the Commissioner who shall consult with and may be guided by the recommendation of the Conservation Commissioner.

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charges, dated July 16, 1969.

14  
73. ~~etc~~ Tests and Analytical Determinations

Except as otherwise expressly provided herein, tests and analytical determinations shall be made in accordance with "Standard Methods for the Examination of Water and Wastewater" (12th Edition), prepared and published jointly by the American Public Health Association, American Water Works Association and the Water Pollution Control Federation.

- A. Water temperature at the surface shall be taken by a thermistor which has been checked periodically against a precision thermometer, certified by the National Bureau of Standards. A reading shall be made in accordance with accepted practice. Other methods of determining water temperature at the surface may be accepted by the Commissioner, if validated.
- B. Intake and discharge temperatures shall be continuously recorded by any generally acceptable and accurate recording instrument.
- C. Tri-axial temperature predictions made in engineering reports shall be confirmed by actual measurements (as a part of post-operational surveillance) by a set or sets of thermistors (or any other validated equipment) so as to provide temperature contours of one degree F. intervals.
- D. Surface temperature before "addition of heat of artificial origin" shall be determined by subtracting from the surface temperature any increase in surface temperature persisting at the location of the plant discharge resulting from such additions.

Attachment 1—Criteria Governing Thermal Discharges, dated July 16, 1969.

E. Temperature of the water at fish nets set by the applicant shall be determined by a method approved by the Commissioner who shall consult with and may be guided by the recommendation of the Conservation Commissioner.

F. Median lethal temperature and temperature preferenda: -  
Temperature preferenda may be determined for fish species by using either natural gradients, if available, or laboratory gradient tanks. If median lethal temperatures are determined, the rate of temperature change shall not be less than 2°F per hour. A corrective factor of 5.5°F may be applied to compensate for the fact that the procedure is based on 50% mortality and the time of exposure is relatively short. In making either determination, fish shall be taken from the waters to which the discharge is to be made. Preferenda temperature measurements are preferred over median lethal temperatures. However, with the suggested correction, a determined median lethal temperature may be substituted for a preferendum temperature.

*15*  
73.~~46~~ Additional Limitations

The Commissioner shall impose additional limitations where he determines, in the exercise of his discretion, that such additional limitations are necessary to maintain the quality of the receiving waters to meet the applicable standards referred to in this Part with consideration given to the cumulative effect of multiple discharges:

Attachment 1—Criteria Governing Thermal Discharges, dated July 16, 1969.

- A. Temperatures lower than those set forth in the Criteria shall be established by the Commissioner to meet the temperature tolerances of aquatic biota present in the affected waters or which are indigenous in such waters under the standards for the classification assigned. (Consideration shall be given to seasonal utilization of the affected waters by species indigenous to the waters);
- B. Temperatures and temperature changes specified in the Criteria for "Streams - Trout Waters" shall be prescribed by the Commissioner for all waters in this State classified "AA(T)"; "A(T)"; "B(T)"; and "C(T)".
- C. Conditions shall be imposed by the Commissioner to prevent any Thermal Barrier or Block.

<sup>16</sup>  
73. ~~#~~ Modifications

The Commissioner may authorize a conditional modification of the stated criteria, including but not limited to the modifications provided in "A" and "B" below, upon an application form provided by the Commissioner, when the Commissioner determines that the data in support of such application for modification demonstrates that one or more of the stated criteria are unnecessarily restrictive as to a particular project in that a modification of such criterion, or criteria, as the case may be, would not impair the quality of the receiving waters so as to adversely affect them for the, "best usage", or contravene the standards for the classification assigned by the Water Resources Commission.

Attachment 1—Criteria Governing Thermal Discharges, dated July 16, 1969.

- A. A modification for a thermal discharge to "Streams - Non-Trout Waters" exceeding the 5°F surface temperature increase may be conditionally authorized by the Commissioner, upon application, when the surface temperature is below 39°F, provided any such increase shall not exceed 10°F, or result in a surface temperature in excess of 44°F, whichever resultant temperature is less.
- B. An application for a modification to permit discharges of the heated waters into the hypolimnion may be conditionally granted if it is established in a biological study that such discharge will not be in sufficient amounts or at such temperatures as to be injurious to fish life, nor <sup>shall</sup> water ~~shall~~ be pumped from the hypolimnion and utilized in a thermal discharge without the support of a similar study.
- C. The application and supporting documents shall be submitted in triplicate. The Commissioner shall, upon receipt of such application, forward a copy of the application for modification and the supporting documents to the Federal Water Pollution Control Administration, Washington, D. C., and the Commissioner shall transmit to that agency such information as he deems appropriate to enable the Secretary of the Interior to fulfill his responsibilities under the Federal law.

Attachment 1—Criteria Governing Thermal Discharges, dated July 16, 1969.

17  
73. ~~25~~ Procedure Upon Application for a Modification

A. The Commissioner may in the exercise of his discretion when he determines it to be in the public interest, hold a hearing upon such application. In the event a hearing is to be held, the Commissioner will give public notice that on a day certain a hearing will be held at a place specified in said notice for the purpose of hearing all persons, corporations and federal agencies and civil divisions of the State and other legal entities that may be affected thereby. The notice shall briefly describe the subject matter of the hearing and state the identity of the applicant and shall be published twice in a newspaper or newspapers regularly circulated in the county or counties bordering or through which the waters flow whose temperatures and/or ecologies may, in the opinion of the Commissioner, be affected by the proposed thermal discharge. The first date of publication shall be not more than 30 nor less than 20 days before the hearing and the second date of publication to be not more than 15 nor less than 5 days before the hearing. The Commissioner shall also cause at least 20 days written notice, by personal service or by registered or certified mail, of the hearing to be given to the Secretary of the Interior, Federal Water Pollution Control Administration, Washington, D. C., and to any persons, or legal entities, he has reason to believe will be interested or affected, whom or which, he considers unlikely to be apprised

Attachment 1—Criteria Governing Thermal Discharges, dated July 16, 1969.

of the hearing by the publication herein provided.

B. Objections and Notice of Appearance: - At any time to the day specified in such notice of hearing, any person, public or private corporation, political subdivision, governmental agency or any other legal entity whatsoever may file in the Office of the Commissioner at Albany, a written notice of appearance stating whether he appears in support of or in objection to the application for modifications, with specific statement of position. Said notice shall state whether testimony or exhibits or both is and are intended to be adduced or offered. Statements of position shall be in writing and shall accompany the notice of appearance and shall be received in evidence. Every objection filed shall be in writing and shall particularly specify the grounds thereof. No person, public or private corporation, political subdivision, governmental agency or any other legal entity shall be heard in favor of or in opposition to the application, or be deemed a party to the proceeding for any purpose whatsoever, without having first complied with the requirements above set forth except that he may be called as a witness and duly sworn as such witness. Amendments to statements of position may be permitted by the Commissioner (or his designee authorized to be appointed by Public Health Law, (206, subd. 8), Any person or entity may appear in person, by attorney or by any representative authorized in writing.

Attachment 1—Criteria Governing Thermal Discharges, dated July 16, 1969.

- C. Public Hearing: - The Commissioner or his designee will hold a hearing upon the day specified in said notice or upon a subsequent day to which the hearing may be adjourned and will hear the proofs and arguments submitted in support of or in opposition to the proposed application for modification.
- D. Manner of Conduct of Hearing: - The procedure for the conduct of such hearing shall be judicial and in accordance with "Hearing Procedures, Water Pollution Control", Part 76, §§ 76.10, 76.11 (a), (b), (c) and §§ 76.15, 76.16, 76.17 (a), 76.18 and 76.19. Any probative evidence not unduly repetitious or cumulative may be received. Oral statements shall be limited to sworn statements of evidentiary fact or legal arguments.

35 Letter to Eastman from Klashman, dated November 23, 1970.



DEPARTMENT OF THE INTERIOR  
FEDERAL WATER POLLUTION CONTROL ADMINISTRATION  
Northeast Region  
John F. Kennedy Federal Building  
Boston, Massachusetts 02203

JRG  
HBS

November 23, 1970

Mr. Paul W. Eastman  
Director, Division of Pure Waters  
New York State Department of  
Environmental Conservation  
Albany, New York 12201

Dear Mr. Eastman:

This will supplement our recent discussions concerning your Criteria Governing Thermal Discharges dated July 16, 1969, which you submitted for approval by the Secretary of the Interior. I regret our headquarters informs us they cannot recommend to the Secretary that these criteria be approved.

I am attaching our detailed comments. After you have an opportunity to review them, I suggest we arrange to discuss them further.

Sincerely yours,

Lester M. Klashman  
Regional Director

Attachment:  
Review of New York Criteria  
Governing Thermal Discharges

Attachment 1—Review of New York Criteria Governing Thermal Discharges, dated July 16, 1969.

REVIEW OF NEW YORK "CRITERIA GOVERNING  
THERMAL DISCHARGES (HEATED LIQUIDS)" - Dated July 16, 1969

Background

New York adopted and the Secretary of the Interior approved water quality criteria which included standards for thermal discharges. They were published as a part of "Classifications and Standards of Quality and Purity for Waters," Part 701.3 et seq., Title 6, Official Compilation of Codes, Rules, and Regulations (6 NYCRR). These regulations provide, for all classifications except Class SD, that the standard for thermal discharges (heated liquids) is "None alone or in combination with other substances or wastes in sufficient amounts or at such temperatures as to be injurious to fish life...or impair the waters for any other best usage...." The statutory authority for these rules and regulations is the Public Health Law, Article 12 (formerly Article 6).

Technical Bulletin 36, "Thermal Aspects of Discharges on Water Resources," was included as a part of the package submitted by New York and approved by the Secretary of the Interior in his second approval letter (August 7, 1967). The bulletin provides that, where discharges of thermal significance are contemplated, studies shall be conducted. It then provides criteria against which the studies should be evaluated. These criteria include maximum temperatures, degree rise and rate of rise limitations, and mixing zone provisions. The applicability of this bulletin as an enforceable water quality standard is unknown. It would appear that it is not legally binding as a standard.

On July 25, 1969, the New York Water Resources Commission adopted "Criteria Governing Thermal Discharges (Heated Liquids)" and published them as Part 704 of 6 NYCRR pursuant to the Public Health Law, Article 12. These 'Criteria' provide that the standards for the waters of the State are 6 NYCRR 701.3 et seq. (as stated above) and that the standards shall be applied in accordance with the provisions that follow in the 'Criteria.' These 'Criteria' have not been approved by the Secretary of the Interior and are the principal subject of this review.

Subsequently, New York published additional rules and regulations applicable to thermal discharges pursuant to "Criteria Governing Thermal Discharges (Heated Liquids)." These additional rules and regulations are contained in the newly titled "Approval of Plans and Issuance of Permits under Public Health Law, Article 12, Title V" as an addition to Part 73 of Title 10 of the NYCRR. The provisions include additional definitions, analytical determinations and temperature limitations, a description of limits, procedures for modification of the criteria, and a right to unilaterally waive rules. This review also considers these rules and regulations as they may affect the thermal discharge criteria. For clarity, the thermal discharge criteria and the additional regulations

Attachment 1—Review of New York Criteria Governing Thermal Discharges, dated July 16, 1969.

(6 NYCRR, Part 704 and 10 NYCRR, Part 73.9 et seq., respectively) are reviewed separately. Recommended improvements are provided with the respective discussions wherever possible.

A draft of thermal criteria proposed by New York and dated September 4, 1968, contained some identical provisions and was reviewed by the Office of Assistant Secretary for Fish and Wildlife and Parks. Applicable portions of the Assistant Secretary's comments of November 4, 1968, are included in this review. (A/S FW&P 11/4/68)

Attachment 1—Review of New York Criteria Governing Thermal Discharges, dated July 16, 1969.

"Criteria Governing Thermal Discharges (Heated Liquids)" (6 NYCRR, Part 704)

Definitions

No. 1 - The definition of "thermal discharge" could cause problems when the effluent temperature is below 70°F. For example, a heated effluent below 70°F could be discharged to the hypolimnion of a stratified lake and still meet the criteria, since the permissible temperature rise limitation applies only at the surface of the lake.

No. 2 - Although this definition is acceptable, it is obviated by 10 NYCRR 873.14 (D). A full discussion is provided under the review of that section. In this review of 'Criteria,' further question of provisions dealing with 'addition of heat of artificial origin' is offered in view of this ambiguity.

Nos. 3 & 4 - Coastal waters and estuaries: By virtue of the footnote to these definitions, it cannot be determined which criteria apply to the waters of Long Island Sound and its bays. Also, to define the bays of the south shore of Long Island and Peconic Bay as estuaries enables the application of criteria allowing up to 50 percent of the cross-sectional area including up to two-thirds of the surface area to be raised to 90°F. This is too permissive.

Streams - Non-trout Waters

The word 'surface' should be deleted, and criteria should apply to all parts of a stream or other body. Under the New York criteria, as written, a polluter could add heat in such a way that surface temperature would be increased only a little, if at all, but the bottom temperatures could be increased by 15 to 20 degrees F. (especially in stratified reservoirs or sluggish or very deep streams or estuaries.) (A/S FW&P 11/4/68)

"Ninety degrees F. maximum is too high for New York. Maximums should be set in line with the present natural maximums in the individual waters." (A/S FW&P 11/4/68)

Since a degree rise limitation is not specified in the general 90°F provision and since a maximum of 86°F and a degree rise limit of 5°F is specified for a portion of the stream, these provisions describe an area which may be considered a mixing zone. The use of a portion of a stream for this purpose is not acceptable. Insofar as the reservation of 50 percent of the cross-sectional area and/or volume of a stream may represent a zone of passage, this is not in accordance with the recommendations to the Secretary of the Interior of the National Technical Advisory Committee ("Water Quality Criteria" - April 1, 1968). Those recommendations call for a passageway that

**Attachment 1—Review of New York Criteria Governing Thermal Discharges, dated July 16, 1969.**

..... 75 percent of the cross-sectional area and/or volume of the stream. The maximum of 86°F is in excess of the National Technical Advisory Committee (NTAC) recommendations for growth of pike, perch, walleye, and smallmouth bass and appears high for such general application.

Temperature rises greater than 5°F would not be acceptable. The maximum degree rise recommended by NTAC during any month of the year is 5°F. Additional discussion of the acceptability of authorization for greater increases is provided below under "Additional Limitations or Modifications."

**Streams - Trout Waters**

The 70°F provision appears to be an effluent standard. The 50°F maximum is a stream standard. The purpose served by the distinction is not clear, except that natural temperatures may exceed 70°F and the standard would not be violated. This situation may be accommodated with appropriate qualifications to a maximum temperature standard for the stream.

NTAC-recommended maximum temperatures are as follows: (1) 68°F for growth or migration routes of salmonids and for egg development of perch and smallmouth bass; and (2) 48°F for spawning and egg development of lake trout, walleye, northern pike, sauger, and Atlantic salmon.

"The two degrees F. increase is acceptable for June through September. The five degrees F. during the rest of the year is too high for trout waters, especially in spawning areas and during the spawning periods." (A/S FW&P 11/4/68)

NTAC recommends that inland trout streams not be warmed or used for cooling waters and that no heated effluents be discharged in the vicinity of spawning areas. The wording of the rise limitations allows the interpretation that the permissible rise may be a rise above the upstream or intake stream temperature, not necessarily the natural stream temperature. Changing the wording to read "before the addition of any heat of artificial origin" would be acceptable.

In addition, the names of the trout streams should be submitted in a letter so that we know which streams will have the more restrictive criteria.

**Lakes**

The application of the standard only at the surface is unacceptable (see earlier comment under 'Streams - Non-trout Waters'). The provision for a mixing zone is also unacceptable. The provision for modification of the criteria, with or without a mixing zone, is discussed below under 'Additional Limitations or Modifications.'

**Attachment 1—Review of New York Criteria Governing Thermal Discharges, dated July 16, 1969.**

The 3°F rise limitation lacks appropriate qualification. The restriction confining thermal discharges to the 'epilimnetic area' does not enable clear interpretation. The epilimnion can be determined using commonly accepted definitions. Interpretation of the 'epilimnetic area' may include waters adjacent to the epilimnion, and the limits of such an 'area' are not offered. The wording of the rise limitation allows the interpretation that the permissible rise may be a rise above the upstream or intake stream temperature, not necessarily the natural stream temperature. Changing the wording to say "before the addition of any heat of artificial origin" would be acceptable. The reference to 'thermal discharges' leaves serious question as to the applicability of the criteria when heated liquids at temperatures below 70°F are discharged.

NTAC recommends that trout and salmon lakes and the hypolimnion of lakes and reservoirs containing salmonids and other cold water forms not be warmed or used for cooling water and that no heated effluents be discharged in the vicinity of spawning areas. For salmonid migratory routes, NTAC recommends that the temperature of the epilimnion of lakes not be raised more than 3°F by the addition of heat of artificial origin.

**Coastal Waters**

The application of the standard only at the surface is unacceptable (see earlier comment under 'Streams - Non-trout Waters'). The provision for a mixing zone is also unacceptable. The provision for modification of the criteria, with or without a mixing zone, is discussed below under 'Additional Limitations or Modifications.'

The temperature rise limitations do not provide that the allowable rises shall be over the natural water temperatures before the addition of any heat of artificial origin.

**Estuaries or Portions of Estuaries**

The application of the standard only at the surface is unacceptable (see earlier comment under 'Streams - Non-trout Waters'). The provision for a general maximum temperature and a second maximum with a degree rise limitation is similar to the approach taken under 'Streams - Non-trout Waters.' The provisions are unacceptable whether viewed as mixing zone or zone of passage provisions. (Additional applicable discussion is provided under 'Streams - Non-trout Waters.')

"The limit of 83 degrees F. or four degrees F., whichever is less, is acceptable for nine months but not for the other three (summer) months. The one and one-half degrees F. limit should apply during summer regarding temperatures." (A/S FW&P 11/4/68)

**Attachment 1—Review of New York Criteria Governing Thermal Discharges, dated July 16, 1969.**

The distinction between estuaries and coastal waters appears to be principally in the mixing zone provisions. The unacceptability of these provisions is highlighted by the 'Definitions' which describe bays as estuaries and leave the determination of which criteria apply to action under 'Additional Limitations or Modifications.'

Additional Limitations or Modifications

In general, providing for modification is acceptable. However, the reference to these provisions via footnotes to certain specific criteria raises question as to intent in application.

Under 'Streams - Non-trout Waters,' specific provision for modification of the 5°F rise limitation is provided. Under 'Lakes,' the application of modifications is specifically referenced to the establishment of an area where the criteria shall not apply. Again, under 'Coastal Waters,' modification in the establishment of mixing zones is specifically referenced.

It is apparent that these modification provisions will be used in the establishment of mixing zones. The concept of defined areas where water quality criteria do not apply is currently not accepted by FWQA. Further, the modification of degree rise limitations should be toward more restrictive provisions. Specific reference to less restrictive degree rises is currently not considered acceptable by FWQA. Insofar as these provisions enable modification of the criteria to less restrictive limits, they are unacceptable.

Extent of Applicability of Criteria to Existing Discharges

Essentially, this provision says that the standard applicable to existing discharges is 6 NYCRR 701.3 et seq. and that the 'Criteria' (6 NYCRR 704) serve only as a 'frame of reference' for determining compliance with the applicable standard. It appears, therefore, that the "Criteria Governing Thermal Discharges (Heated Liquids)" are not fully enforceable in their specific detail. This is supported by the wording of the first paragraph of these 'Criteria.' The first paragraph states that the standards for thermal discharges (heated liquids) are 6 NYCRR 701.3 et seq. and that they shall be applied as described in the remainder of the 'Criteria.' In any case, the ambiguity of the wording is apparent and should be clarified.

Attachment 1—Review of New York Criteria Governing Thermal Discharges, dated July 16, 1969.

"Approval of Plans and Issuance of Permits under Public Health Law, Article 12, Title V" (10 NYCRR, Part 73)

These regulations are additional rules and regulations applicable to thermal discharges and promulgated pursuant to "Criteria Governing Thermal Discharges (Heated Liquids)." Some of the provisions have a direct bearing on those 'Criteria' or their application. A section by section review is not provided, but comment is included for all items relevant to those 'Criteria' which are unacceptable or questionable.

§73.10 (A): It is not clear what the "maximum ecologically significant temperature" might be. After temperature is taken by a thermistor (per §73.14 (A)), there is no apparent way to determine whether the 'Water Temperature at the Surface' has been measured, since it may or may not be 'ecologically significant.' Deletion of 'ecologically significant' is recommended.

§73.10 (L): Thermal stratification may occur in lakes, reservoirs, or sluggish or very deep streams or estuaries. The following definition is suggested to cover the more general case: Thermocline - That layer in a body of water where the temperature difference is greatest per unit of depth. It is the layer in which the drop in temperature equals or exceeds one degree C. (one and eight-tenths degrees F.) per meter (39.37 inches).

§73.10 (M): Describing the epilimnion as warm is somewhat relative. The following definition is technically definitive and is suggested as a replacement: Epilimnion - That region of a body of water that extends from the surface to the thermocline and does not have a permanent temperature stratification.

§73.10 (N): The following definition is suggested: Hypolimnion - The region of a body of water that extends from the thermocline to the bottom and is removed from surface influence.

§73.11 (A): By virtue of the definition of 'thermal discharge' in the 'Criteria' (6 NYCRR, Part 704), this provision does not apply to discharges below 70°F. (§73.10 makes the definitions in the 'Criteria' a part of this regulation.)

§73.11 (B): Earlier comment in this review regarding the legal status of the 'Criteria' is supported again by this section. The standard is described here as 6 NYCRR 701.3 et seq., and the 'Criteria' are referenced as 'guidelines and provisions.'

§73.14 (D): This provision creates an ambiguity which impacts all the degree rise limitations wherein the baseline temperature is the temperature before the addition of heat of artificial origin. The definition

Attachment 1—Review of New York Criteria Governing Thermal Discharges, dated July 16, 1969.

under 'Criteria' clearly references all heat from other than natural sources as heat of artificial origin. However, in this provision three aspects are questionable: (1) surface temperature is used in two senses, one a theoretical number and the other an actual measurement; (2) the surface temperature at the discharge may be markedly different from the temperature at the discharge; and (3) the final term 'such addition' may be construed to mean the additions only from the discharge in question and not all artificial heat sources.

§73.15 (F): The significance of this provision and its relationship to 'Standard Methods' is unknown. Some further explanation is needed.

§73.16: Provisions for modification are discussed in general above under the 'Criteria' review, 'Additional Limitations or Modifications.'

§73.16 (A): "A ten degrees F. increase or 44 degrees F. maximum, whichever is less, is too much temperature rise for winter. This should be held to a five degrees F. rise over natural temperatures." (A/S FW&P 11/4/68)

§73.16 (B): NTAC recommends for stratified waters supporting a warm water biota that there be no discharge of a heated effluent into the hypolimnion, unless a special study shows that the practice is desirable. It is also recommended that water for cooling not be pumped from the hypolimnion to be discharged to the same body of water. For cold water biota, NTAC recommends that the hypolimnion not be warmed or used for cooling water. Modifications in this regard would not be acceptable.

§73.16 (C): This provision authorizes the New York Commissioner of Health to unilaterally identify the information necessary to enable the Secretary of the Interior to fulfill his responsibilities under the Federal Law. This is not acceptable.

§73.16: This provision appears to provide the New York Commissioner of Health authority to waive rules unilaterally, including the 'Criteria' insofar as they are included by reference. It may also be used to waive stipulated responsibilities to the Secretary of the Interior. The impact and propriety of this waiver is questioned.

Attachment 1—Review of New York Criteria Governing Thermal Discharges, dated July 16, 1969.

General Remarks

The review of the two regulations above contains, as much as possible, recommendations for modification. In some cases where an entire approach is unacceptable, the provision may only be deleted. These regulations with the recommended changes and additional provisions as needed from NTAC recommendations could form the basis for an acceptable temperature standard.

The review of the Assistant Secretary for Fish and Wildlife and Parks (11/4/68) of a similar proposal (9/4/68) for temperature criteria contained the following observation:

"It appears to us that the presently proposed New York criteria are exceedingly vague and so ambiguously written as to defy either clear definition for their administration or effective prosecution in the courts if the latter process becomes necessary."

It may be concluded that the successive issuance of rules and regulations which expand upon the initial standards (6 NYCRR 701.3 et seq.) have served to complicate the reading and understanding of New York temperature requirements and have created serious ambiguities. The only consistency lies in the repeated reference to the initial standards, and these standards lack specificity. It is not possible to conclude that additional regulations will rectify present shortcomings or that amendment of 6 NYCRR, Part 704 and 10 NYCRR, Part 73 will provide readily understood temperature criteria.

Recommendation

It is recommended that temperature standards for the waters of New York State be developed in accordance with the recommendations of the NTAC; that the standards not include exclusive definitions, modifications, limits of applicability, uncommon procedures, waivers, and mixing zones; and that the standards be adopted as a part of "Classifications and Standards of Quality and Purity" (6 NYCRR 701.3 et seq.) and "Special Classifications and Standards" (6 NYCRR 702.1 et seq.).

- 36 Letter to Klashman from Paul S. Shemin, dated December 8, 1970.



STATE OF NEW YORK  
**DEPARTMENT OF LAW**  
 STATE OFFICE BUILDING  
 80 CENTRE STREET  
 NEW YORK, N.Y. 10013  
 TELEPHONE: 488-7560

revised 12/12/70  
 To be answered by C.O.D.  
 week of 12/21/70

Dunphy

EDWARD J. LEFKOWITZ  
 ATTORNEY GENERAL

December 8, 1970

Lester M. Klashman  
 Regional Director  
 U.S. Department of Interior  
 Federal Water Pollution Control Administration  
 2303 J.F.K. Building  
 Boston, Massachusetts 02203

Dear Mr. Klashman:

I received today a copy of the statement submitted by your office at the A.E.C. hearings on the LILCO Shoreham nuclear generating station. In connection with that statement, there are a few unresolved questions that have been bothering our office, with which you might be able to help us.

According to your statement, New York State, until 1969, had federally approved thermal criteria. Your statement further states, however, that in 1969 New York adopted criteria which have not as yet received federal approval. In addition, it is stated that for the near shore waters of Long Island Sound in the vicinity of Shoreham, New York, the relevant thermal criteria are those of New York State.

Which New York State thermal criteria -- the old, approved ones, or the new, as yet unapproved ones?

We also have a question as to what is meant by "thermal criteria" as the term is applied to New York State. New York has numbered "criteria" which are in furtherance of its "standard", which, in essence, says "don't kill fish". When Interior approved New York's "thermal criteria", did it approve the State's numbers (i.e. its criteria), or did it approve the State's "don't kill fish" standard? Did it approve both the numbered criteria as well as the standard? What would Interior's position be if the numbered criteria were shown to be insufficient to uphold the general "don't kill fish" standard?

36 Letter to Klashman from Paul S. Shemin, dated  
December 8, 1970.

To: Lester M. Klashman

-2-

December 8, 1970

In your statement's conclusion, after summarizing the reasons for your concern about the potentially adverse effects of discharges into Long Island Sound, you stated:

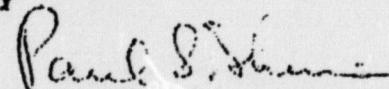
"In view of the above, we recommend that all environmental issues be considered in the issuance of the construction permit for the Shoreham Nuclear Power Plant."

Is this conclusion based upon an interpretation of the National Environmental Policy Act of 1969, which would require such consideration? At what stage, and by what means do you envision such consideration? Independent evidentiary investigation by the Atomic Safety Licensing Board? Consideration by the Board of the environmental statements of the various state and federal environmental agencies, with no independent evidentiary proceedings? Consideration by the AEC itself, after permit approval by the licensing board? Would State certification under the Water Quality Improvement Act of 1970 obviate the need for federal consideration of environmental issues such as thermal discharges in the Shoreham proceeding? Should State certification be obtained under the old, approved criteria, or the new, as yet unapproved ones?

We would appreciate any guidance you could give us in these matters.

Very truly yours,

LOUIS J. LEFKOWITZ  
Attorney General  
By



PAUL S. SHEMIN  
Assistant Attorney General

PSS:rab

Letter to Shemin from Pahren, dated April 12, 1971.  
 (Attachment same as that to Document 35, above.)

UNITED STATES GOVERNMENT  
 ENVIRONMENTAL PROTECTION AGENCY

*File N.Y. thermal*

WATER QUALITY OFFICE  
 John F. Kennedy Federal Bldg.  
 Boston, MA 02203

April 12, 1971

Mr. Louis K. Izkowitz, Attorney General  
 State of New York  
 Department of Law  
 80 Centre Street  
 New York, New York 10013

ATTN: Mr. Paul S. Shemin, Assistant Attorney General

Dear Mr. Shemin:

Your letter of December 8, 1970 poses many interesting questions concerning the New York State Thermal standards and the National Environmental Act of 1969. I believe that you will find that most of your questions on New York State thermal criteria are answered by the enclosed document which is a copy of our review of the thermal criteria recently submitted by New York State for Federal approval. I call your attention particularly to the section entitled "Background" (pages 1 and 2), "General Remarks" (page 9), and "Recommendations" (page 9). Your first question on which set of criteria to use is answered on page 1 of the "Background." In answer to your question "What would Interior's position be if the numbered criteria were shown to be insufficient to uphold the general standard of "don't kill the fish", the recommendation of the Environmental Protection Agency would be to recommend that the numbered criteria be made more stringent. The amount of upgrading of the numerical criteria would depend upon the applicable water quality standard classification.

For our Environmental Protection Agency statement on the Shoreham Nuclear Station, the recommendation that all environmental issues be considered in the issuance of the construction permit was based upon the National Environmental Policy Act of 1969. According to this Act, environmental issues are to be considered for each Federal action. For the Shoreham Station the next major Federal action is the granting of a construction license by the Atomic Energy Commission. Therefore, for this plant the environmental issue should be resolved before the issuance of a construction permit.

Because of the many potential environmental effects that could be caused by the construction and operation of federally regulated or operated facilities, we believe that State certification as required under the Water Quality Improvement Act of 1970 does not obviate the need for Federal consideration of environmental issues, such as thermal discharges in the Shoreham case.

Letter to Shemin from Pahren, dated April 12, 1971.  
(Attachment same as that to Document 35, above.)

-2-

State certification should be issued under the State criteria promulgated July 16, 1969. These as you recognize, are not Federally approved. The Federal Government must operate under the restrictions of the Federally approved version.

Sincerely yours,

*Herbert R. Pahren*  
Herbert R. Pahren  
Acting Regional Director

Enclosure

cc: Mr. Bennett w/Liskowicz Ltr of 12/8/70  
4/26/71

58 Letter to Commissioner Diamond from G. M.  
Hansler, dated November 10, 1971.

*file NY  
Thru*

## ENVIRONMENTAL PROTECTION AGENCY

Region II Office  
26 Federal Plaza  
New York, N.Y. 10007  
November 10, 1971

Mr. Henry L. Diamond, Commissioner  
Department of Environmental Conservation  
50 Wolf Road  
Albany, New York 12201

Dear Mr. Diamond:

This concerns the matter of New York State's thermal criteria which are part of the New York State water quality standards, approved by the Department of the Interior in parts on July 18, 1967 and on August 7, 1967.

Subsequent to original Federal approval New York State adopted on July 25, 1969, in accordance with State rules and regulations, revised thermal criteria. Those New York State adopted revisions were promulgated utilizing public notice and public hearing procedures as required by Federal law.

The revised and adopted New York State "Criteria Governing Thermal Discharges (Heated Liquids)" (July 25, 1969) were never formally submitted to the Secretary of the Interior or the Administrator of the Environmental Protection Agency for approval. However, these revised and State adopted thermal criteria were submitted to the Department of the Interior for their review and comments (See Attachment A).

The Federal Water Pollution Control Administration of the U.S. Department of the Interior, after evaluation, considered that the revised thermal criteria for the waters of New York State could not be approved as submitted (see Attachment B).

Further, the U.S. Department of the Interior, Federal Water Pollution Control Administration Regional Director in Boston informed Mr. Paul Eastman by letter on November 23, 1970 that "I regret our headquarters informs us that they cannot recommend to the Secretary that these criteria be approved" (see attachment C). Detailed Federal Water Pollution Control Administration comments on the objections to the criteria accompanied the letter to the State.

58 Letter to Commissioner Diamond from G. M.  
Hansler, dated November 10, 1971.

Page 2 - Mr. Henry L. Diamond

On December 2, 1970, the Federal water pollution control program was transferred from the Department of the Interior to the Environmental Protection Agency in accordance with Executive Reorganization Plan No. 3 of 1970.

New York State responded to Interior's letter of November 23, 1970 on January 8, 1971 and suggested a meeting to resolve the points at issue (see Attachment D).

On April 29, 1971 a meeting was held involving: New York State; representatives of the EPA Region II Office of Water Programs; Richard Nalesnik, Director of the Water Quality Standards Office; and members of the Federal Thermal Task Force, to attempt to resolve the remaining differences on the thermal criteria. The Federal Thermal Task Force consists of:

Frank Rainwater, Chief, National Thermal Research Program,  
Pacific Northwest Water Laboratory.

Dr. Donald Mount, Director, National Water Quality Laboratory

Dr. Clarence Tarzwell, Director, National Marine Water Quality Laboratory

Yates Barber, Fish and Wildlife Service, Department of the Interior.

The EPA members to those discussions generally agreed that the July 25, 1969 criteria adopted by New York State with changes as recommended by a majority of the Federal Thermal Task Force members would be approvable as in Attachment E, "Final Revised Draft - Section 702.9". It is our understanding that New York State now wishes to officially revise and adopt criteria in accordance with the consensus of the Federal Thermal Task Force.

Two steps remain for Federal approval of the revised thermal criteria for New York State:

1. In accordance with Federal regulations (16 CFR 622.4(a)) public notice/public hearing procedures must be applied to further revise the New York State standards as adopted on July 25, 1969. Also, the revisions must be adopted in accordance with State laws, rules, and regulations.
2. After the revised thermal criteria have been officially adopted by New York State, they should formally be submitted to the Environmental Protection Agency for approval.

58 Letter to Commissioner Diamond from G. M.  
Hansler, dated November 10, 1971.

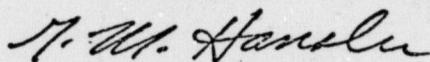
Page 3 - Mr. Henry L. Diamond

The EPA official to whom the revised State standards must be submitted for approval is the Regional Administrator of EPA Region II, in accordance with the EPA Administrator's redelegation of authority of October 13, 1971.

It is suggested that the New York State Department of Environmental Conservation give public notice and hold the necessary public hearings as soon as possible so as to rectify the present disparity between existing Federally-approved thermal criteria, the State's adopted revisions of July 25, 1969, and EPA experts' current position regarding thermal criteria in New York State based upon water use classifications and new technology developed since 1967. Upon request, this office will assure EPA expert representation at any public hearings, in accordance with our views as stated during deliberations of the Federal Thermal Task Force.

New York State's patience in tolerating the various reorganizations of the Federal water pollution control program and response to New York State's thermal criteria have been very much appreciated. An early resolution of this matter through the public notice/public hearing process so as to allow New York State officials, environmental groups, industry, and Federal agencies to air their views will meet the letter and intent of the present Federal Water Pollution Control Act.

Sincerely yours,



Gerald M. Hansler, P.E.  
Regional Administrator

Enclosures

Attachment 1—Letter to Klashman from Metzler,  
dated July 31, 1969.



STATE OF NEW YORK  
DEPARTMENT OF HEALTH  
ALBANY

DWIGHT F. METZLER, P.E.  
DEPUTY COMMISSIONER

July 31, 1969

Mr. Lester Klashman, Regional Director  
Federal Water Pollution Control Administration  
United States Department of the Interior  
John F. Kennedy Federal Building  
Boston, Massachusetts 02203

Dear Les:

This is to confirm the information you received on Friday via telephone. The Water Resources Commission that day unanimously adopted Thermal Criteria for our surface waters and the Rules and Regulations for the implementation of the same. There were some minor changes requested in the Rules and Regulations prior to adoption.

Attached are six copies of each. The changes requested in the Rules and Regulations have been made in ink. It would be appreciated if you would notify your Washington office of this action.

I have discussed these informally with Commissioner Dominick and hope that you will support the acceptance of these criteria as federal standards.

Sincerely,

Dwight F. Metzler, P.E.  
Deputy Commissioner

Attachments

(1)  
P  
V

T-3

Mr. 4

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Attachment 1—Letter to Klashman from Metzler,  
dated July 31, 1969.

July 16, 1969

CRITERIA GOVERNING THERMAL DISCHARGES  
(Heated Liquids)

The standards for Thermal Discharges (heated liquids) to the waters of the state are "None alone or in combination with other substances or wastes in sufficient amounts or at such temperatures as to be injurious to fish life ... or impair the waters for any other best usage ..." (6NYCRR 701.3 et seq.) and shall be applied, under Water Pollution Control Act, Public Health Law Article 12 as follows:

Definitions

1. A thermal discharge is one which is at a temperature greater than 70°F. A discharge at a lower temperature will also be a thermal discharge if it results in a temperature rise of the receiving water above the permissible temperature rises listed below.
2. The term "addition of heat of artificial origin" as used throughout the criteria shall include all heat from other than natural sources. In the event of multiple discharges, consideration shall be given to the cumulative effects of such discharges.
3. Coastal waters are those marine waters within the territorial limits of the state other than estuaries.<sup>1</sup>
4. Estuaries are the tidal portions of all rivers and streams, the bays of the southshore of Long Island and Peconic Bay.<sup>1</sup>

<sup>1</sup> The waters of Long Island Sound and its bays or portions thereof have characteristics of either coastal waters and/or estuaries. The criteria to be applied to any particular project will depend upon the site location and all other relevant facts. The applicable criteria will be determined as provided in Paragraphs 1 and 2 of "Additional Limitations or Modifications."

ONLY COPY AVAILABLE

Attachment 1—Letter to Klashman from Metzler,  
dated July 31, 1969.

FRESH WATERS

STREAMS

NON-TROUT  
WATERS.

- The water temperature at the surface of a stream shall not be raised to more than 90°F at any point. Further, at least 50 percent of the cross sectional area and/or volume of the flow of the stream including a minimum of 1/3 of the surface as measured from shore to shore shall not be raised to more than 5°F over the temperature that existed before the addition of heat of artificial origin or to a maximum of 86°F whichever is less,<sup>2</sup> except during periods of the year when stream temperatures are below 39°F. A greater than 5°F increase may be authorized under "Additional Limitations or Modifications" (post). For the protection of the aquatic biota from severe temperature changes, routine shut down of an entire thermal discharge at any site should not be scheduled during the period from December through March.

TROUT  
WATERS

- No discharges at a temperature over 70°F will be permitted at any time to streams classified for trout. From June through September, no discharges at any temperature will be permitted that will raise the temperature of the stream more than 2°F over that which existed before the addition of heat of artificial origin. From October through May, no discharges at any temperature will be permitted that will

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<sup>2</sup>It is recognized that because of widely varying conditions in streams and estuaries, the Commissioner will establish, where necessary to meet the standards for thermal discharges, a lower maximum surface water temperature and a greater zone of passage under the procedures set forth in "Additional Limitations or Modifications".

Attachment 1—Letter to Klashman from Metzler,  
dated July 31, 1969.

raise the temperature of the stream more than 5°F over that which existed before the addition of heat of artificial origin or to a maximum of 60°F whichever is less.

**LAKES** The water temperature at the surface of a lake shall not be raised more than 3°F over the temperature that existed before the addition of heat of artificial origin, except that within a radius of 300 feet or equivalent area<sup>3</sup> from the point of discharge, this temperature may be exceeded. In lakes subject to stratification, the thermal discharges shall be confined to the epilimnetic area.

**COASTAL  
WATERS** The water temperature at the surface of coastal waters shall not be raised more than 4°F over the monthly means of maximum daily temperatures from October through June nor more than 1.5°F from July through September except that within a radius of 300 foot or equivalent area<sup>3</sup> from the point of discharge this temperature may be exceeded.

**ESTUARIES OR  
PORTIONS OF  
ESTUARIES** The water temperature at the surface of an estuary shall not be raised to more than 90°F at any point provided further, at least 50 percent of the cross sectional area and/or volume of the flow of the estuary including a minimum of 1/3 of the surface as measured from water edge

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<sup>3</sup>It is recognized that a radius of 300 feet or equivalent area may be too liberal or too restrictive and that a lesser or a greater area may be required or permitted under the procedures set forth in "Additional Limitations or Modifications".

Attachment 1—Letter to Klashman from Metzler,  
dated July 31, 1969.

to water edge at any stage of tide, shall not be raised to more than 4°F over the temperature that existed before the addition of heat of artificial origin or a maximum of 83°F, whichever is less.<sup>2</sup> However, during July through September if the water temperature at the surface of an estuary before the addition of heat of artificial origin is more than 83°F, an increase in temperature not to exceed 1.5°F, at any point of the estuarine passageway as delineated above, may be permitted.

ADDITIONAL LIMITATIONS OR MODIFICATIONS

1. The Commissioner of Health may impose limitations and/or conditions in addition to the stated criteria where he determines, in the exercise of his discretion, that such additional limitations and/or conditions are necessary to maintain the quality of the receiving waters for the "best usage" classifications and standards assigned by the Water Resources Commission pursuant to Public Health Law, Article 12, § 1203.
2. The Commissioner may authorize a conditional modification of the stated criteria upon application. Upon receipt of such application the Commission shall confer with the Federal Water Pollution Control Administration and shall transmit to that agency information to enable the Secretary of the Interior to fulfill his responsibilities under Federal law. The applicant shall have the burden of establishing to the satisfaction of the Commissioner of Health that one or more of the criteria are unnecessarily restrictive as to a particular project in that a modification of such criterion, or criteria, as the case may be, would not impair the quality of the receiving waters so as to adversely affect them for the "best usage" classifications and

Attachment 1—Letter to Klashman from Metzler,  
dated July 31, 1969.

standards assigned by the Water Resources Commission. The Commissioner may, when he determines it to be in the public interest, hold a public hearing upon the application.

3. Any such modification shall be conditioned upon post-operational experience. Plans for additional treatment of, or change in, the thermal discharge shall be developed and submitted as part of the application to the Commissioner which shall be implemented upon order of the Commissioner in the event that post-operational experience shows a trend toward impairment by the discharge of the quality of the receiving waters for the assigned "best usage" classifications and standards.

RULES AND REGULATIONS

The Commissioner may adopt rules and regulations with the approval of the Water Resources Commission governing the procedures prescribed or authorized herein. Such rules and regulations may include the methods and procedures for the making of tests and analytical determinations hereunder and the notice and hearing procedure to be followed in administering "Additional Limitations or Modifications", above.

EXTENT OF APPLICABILITY OF CRITERIA TO EXISTING DISCHARGES

In determining whether a discharge existing prior to the adoption of the above criteria complies with the applicable standard for thermal discharges ("None alone or in combination with other substances or wastes in sufficient amounts or at such temperature as to be injurious to fish life ... or impair the waters for any other best usage ...") (6NYCRR 701.3 et seq) those criteria are intended only to be a frame of reference.

ONLY COPY AVAILABLE

Attachment 1—Letter to Klashman from Metzler,  
dated July 31, 1969.

Moreover, the procedures described in Public Health Law, § 1223, shall apply in any application of the criteria to discharges existing prior to the adoption of these criteria without regard to whether such discharges began prior to or subsequent to the enactment of this State's Water Pollution Control Act, (now Public Health Law, Article 12).

Attachment 2—Letter to Metzler from Dominick, dated  
November 14, 1969.

Attachment B

NOV. 14 1969

Dear Mr. Metzler:

An evaluation of the New York water quality standards approved by the Department of the Interior on July 18, 1957 necessitates consideration of significant aspects of these standards by our respective water pollution control staffs. These include provisions to protect and preserve existing high quality waters; development of stream classifications more compatible with those of neighboring [ILLEGIBLE] classification of some Class D and SD waters; establishment of a pH standard in coastal and tidal waters; establishment of [ILLEGIBLE] criteria for radioactive substances for the protection of public water supplies; upgrading of treatment requirements to remove phosphates from waters discharged into Lakes Erie and Ontario, and [ILLEGIBLE] for Lake Champlain and the Hudson River.

I know our Regional Staff has had discussions with you on these problems. The Director of the Northeast Regional Office of the Federal Water Pollution Control Administration has been requested to get in touch with you concerning the incorporation of these elements as part of the enforceable standards of your State. I am sure with the spirit of cooperation that has always existed between your State and this Department that these issues can be resolved in the very near future.

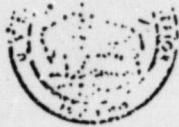
Sincerely yours,

s/ David D. Dominick  
Commissioner

Dwight F. Metzler  
Deputy Commissioner  
State Department of Health  
84 Holland Avenue  
Albany, New York 12200

cc: Region (2)  
Archives (2)  
Mr. Stein

Attachment 3—Letter to Eastman from Klashman  
dated November 23, 1970. (Annexed document  
same as Document 35 above.)



DEPARTMENT OF THE INTERIOR  
FEDERAL WATER POLLUTION CONTROL ADMINISTRATION  
Northeast Region  
John F. Kennedy Federal Building  
Boston, Massachusetts 02203

JRU  
HB

Attachment C

November 23, 1970

Mr. Paul W. Eastman  
Director, Division of Pure Waters  
New York State Department of  
Environmental Conservation  
Albany, New York 12201

Dear Mr. Eastman:

This will supplement our recent discussions concerning your Criteria Governing Thermal Discharges dated July 16, 1969, which you submitted for approval by the Secretary of the Interior. I regret our headquarters informs us they cannot recommend to the Secretary that these criteria be approved.

I am attaching our detailed comments. After you have an opportunity to review them, I suggest we arrange to discuss them further.

Sincerely yours,

Lester M. Klashman  
Regional Director

Attachment:  
Review of New York Criteria  
Governing Thermal Discharges

Attachment 4—Letter to Pahren from Stevens, dated  
January 8, 1971.

Attachment D

New York State Department of Environmental Conservation  
Albany, N.Y. 12201



Henry L. Diamond  
Commissioner

January 8, 1971

Mr. Herbert Pahren  
Federal Water Quality Administration  
Department of the Interior  
John F. Kennedy Federal Building  
Boston, Massachusetts 02203

Dear Herb:

You asked that we set down our comments on the comments you sent us on our Thermal Criteria. I think that is a good idea.

The comments from FWQA were also reviewed by Mr. George Burdick of this Department and a member of the Subcommittee for Fish, Other Aquatic Life and Wildlife which developed the "Green Book". I am attaching a copy of the comments he drafted.

Nowhere, in any of these discussions, can I find any recognition or acknowledge of our standard relating to heated liquids or thermal discharges. As is pointed out in 704.1 the standard is, "None alone or in combination with other substances or wastes in sufficient amounts or at such temperatures as to be injurious to fish life ... or impair the water for any other best usage ...". To go into court on the charge of contravention of stream standards, all that is necessary is to prove that the discharge is injurious to fish life. We are not making it complicated by playing the "numbers game".

Now I know that different lawyers have different ideas as to the ways they want the laws written under which they will have to seek court action. This was clearly brought home to me when I sat in on discussions of effluent standards for both Orsanco and ISC. In one case the attorney wanted a "laundry list" of hazardous chemicals and their values while the other attorney wanted merely a broad definition that would allow him to take action on any chemical that he could prove was hazardous. It is our feeling that with things moving so swiftly as they are now, concepts are far better than figures.

Definitions

No. 1 - You mention as an example the discharge of a heated effluent to the hypolimnion. If you note under lakes all discharges shall be confined to the epilimnetic area which does not allow discharge to the hypolimnion. Also 73.16 B spells out the conditions under which discharges to the hypolimnion would be permitted. Therefore, we fail to see any substance to this comment.

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Attachment 4—Letter to Pahren from Stevens, dated  
January 8, 1971.

Mr. Herbert Pahren

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January 8, 1971

No. 2--Omitted for the present as you have done.

Nos. 3& 4 --Our problem with relation to Long Island Sound, stems from the action of the Department of the Interior classifying it as an estuary. This was never our intent when we separated estuaries from coastal waters. It would be helpful to us if the Federal establishment would change their classification of the Sound.

Streams - Non-trout Waters

The word "surface" was used here deliberately. This applies to any point on the surface even that directly over the point of discharge. It was done to protect the floating aquatic organisms that are incapable of motion on their own to avoid high temperatures. It was our feeling that it would be the fish themselves that would be present below the surface and they are capable of motion so as to avoid any places that would effect them.

With reference to the 90° F maximum, this is precisely that. In cases when it is too high because of the presence of fish that would be adversely affected, the State will set a lower limit. Also as mentioned earlier, this is at any point, even directly over the point of discharge..

I don't understand your comment, "... considered a mixing zone. The use of a portion of a stream for this purpose is not acceptable." On page 31 of the "Green Book" it states, "The shape and size of mixing areas will vary with the location, size, character, and use of the receiving water and should be established by proper administrative authority". We have been given to understand that the thermal criteria for Connecticut has been approved. Number 2 under General Policy states, "In the discharge of waste treatment plant effluent and cooling waters to the receiving waters, cognizance shall be given both in time and distance to allow for mixing of effluent and stream. Such distances required for complete mixing shall not affect the water usage class adopted but shall be defined and controlled by the Commission." Vermont asked for assistance from FWQA in drafting Water Use Classes and Standards. In the draft submitted by FWQA is the statement, "Cognizance may be given to reasonable time and distance to allow for mixing of effluent and receiving waters. Such distances required for mixing shall be defined and controlled by the regulatory authority recognizing adjacent and downstream State water use."

Here again the maximum is not mandatory. If any of the fish you mention are present, our regulation allows us to recognize this and to set the limit accordingly. What temperature would you recommend in the absence of these species?

Attachment 4—Letter to Pahren from Stevens, dated  
January 8, 1971.

Mr. Herbert Pahren

-3-

January 8, 1971

We feel that our definition of a passaway is superior to that proposed by NTA because it requires that a portion of the surface water be retained at a temperature that would permit fish passage. Under the definition of NTAC, the heated water could cover the entire surface of the stream and thus adversely affect those organisms not capable of motion on their own.

Streams - Trout Waters

Mr. Burdick has commented on most of the suggestions here because they are in the area of fish life

With reference to your fourth comment, please check the wording in Recommendation 1 of the "Green Book" Page 42. We copied this accurately.

Lakes

We have made previous comments on this item.

We are aware of what NTAC has said about the hypolimnion of lakes and believe that we have adequately protected these waters. Are you familiar with the work that J. M. Symons of FWQA is doing and publishing?

Coastal Waters

These items have been discussed previously plus the comments from Mr. Burdick.

Estuaries or Portions of Estuaries

These items have been discussed previously plus the comments from Mr. Burdick..

Additional Limitations or Modifications

Your comments are unclear.

Extent of Applicability of Criteria to Existing Discharges

This is true. We have a standard that is enforceable in a court of law and the criteria is a "frame of reference". In this state, it is the Attorney General who represents the State in a law suit. This matter was written by an Assistant Attorney General in a way that he felt best suited his purpose to obtain convictions.

Approval of Plans and Issuance of Permits

§ 73.10 (A) We have no objection.

§ 73.10 (L) We see no improvement in this wording over the one we chose.

Attachment 4—Letter to Pahren from Stevens, dated  
January 8, 1971.

Mr. Herbert Pahren

-4-

January 8, 1971

§ 73.10 (M) We see no improvement in this wording over the one we chose.

§ 73.10 (N) We see no improvement in this wording over the one we chose.

(With reference to the definitions suggested in 73.10 (L), (M) and (N) we wonder why, if the ones suggested are so good, FWQA does not use them. I refer to the definitions used in the Glossary of the Report on Pollution of the Interstate Waters of Lake Champlain and Its Tributaries and printed on page 152 of the Proceedings of the Conference held November 13 at Burlington, Vermont and December 19-20, 1969, Boston, Mass.)

§ 73.11 (A) Don't know what you are driving at.

§ 73.11 (B) Discussed previously.

§ 73.14 (D) Agreed that this needs clarification.

§ 73.15 (F) We have no such item.

§ 73.16 (A) See Mr. Burdick's comments.

§ 73.16 (B) Again, I refer you to the work being done by J. M. Symons.

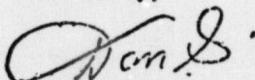
§ 73.16 (C) This is a legal question and the answer here was drafted by our Assistant Attorney General to be in keeping with New York State law.

§ 73.18: Here again we would have to refer you to our Assistant Attorney General.

As I understand it the most effective tool the Federal Government has now for legal action against polluters is the 1899 Harbors and Rivers Act. The beauty of this act is that it is uncluttered by figures. We feel exactly the same way about our "Standards".

We will be looking forward to a meeting with you to resolve some of these points..

Sincerely,



Donald B. Stevens, P.E.  
Director  
Bureau of Water Quality Management

Attachment

Attachment 5—Draft Section 702.9—Thermal  
Discharges—revised September 28, 1971.

Attachment E

DRAFT - 5/13/71

Revised 9/28/71

Section 702.9

Thermal Discharges  
(Heated Liquids)

Definitions

1. A thermal discharge is one which results or would result in a temperature rise of the receiving water above the permissible temperature rises listed below.
2. The term "addition of heat of artificial origin" as used throughout the criteria shall include all heat from other than natural sources. In the event of multiple discharges, consideration shall be given to the cumulative effects of such discharges and contiguous zones of passage.
3. Coastal waters are those marine waters within the territorial limits of the state other than estuaries. For the purposes of thermal discharges the main body of Long Island Sound is designated as coastal waters.
4. Estuaries are the tidal portions of all rivers and streams.
5. Enclosed bays are those marine waters within the territorial limits of New York State, other than coastal waters or estuaries in which exchange of sea water is severely limited by barrier beaches. Specifically, these are Jamaica Bay, Hempstead Bay, Great South Bay, Moriches Bay, Shinnecock Bay and Mecox Bay.

Attachment 5—Draft Section 702.9—Thermal  
Discharges—revised September 28, 1971.

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STREAMS

NON-TROUT  
WATERS

- The water temperature at the surface of a stream shall not be raised to more than 90°F at any point. Further, in at least 50 percent of the cross sectional area and/or volume of the flow of the stream including at least a minimum of 1/3 of the surface as measured from shore to shore shall not be raised to more than 5°F at any point over the temperature that existed before the addition of heat of artificial origin or to a maximum of 86°F whichever is less.<sup>1</sup> Further, the discharge must meet the additional requirement that no more than a distance of 1000 feet on the surface in any direction shall be raised more than 5°F over the temperature that existed before the addition of heat of artificial origin or to a maximum of 86°F, whichever is less. For the protection of the aquatic biota from severe temperature changes, routine shutdown of an entire thermal discharge at any site should not be scheduled during the period from December through March.

TROUT  
WATERS

- No discharges at a temperature over 70°F will be permitted at any time to streams classified for trout. From June, through September, no discharges at any temperature will be permitted that will raise the

Attachment 5—Draft Section 702.9—Thermal  
Discharges—revised September 28, 1971.

-3-

temperature of the stream more than 2°F over that which existed before the addition of heat of artificial origin. From October through May, no discharges at any temperature will be permitted that will raise the temperature of the straam more than 5°F over that which existed before the addition of heat of artificial origin or to a maximum of 50°F whichever is less.

LAKES AND  
RESERVOIRS

— The water temperature at the surface of a lake shall not be raised more than 3°F over the temperature that existed before the addition of heat of artificial origin except that within a radius of 300 feet or equivalent area from the point of discharge, this temperature may be exceeded. In lakes subject to stratification, the thermal discharges shall be confined to the epilimnion.

COASTAL  
WATERS

— The water temperature at the surface of coastal waters shall not be raised more than 4°F over the temperature that existed before the addition of heat of artificial origin from October through June nor more than 1.5°F

1 It is recognized that because of widely varying conditions in streams and estuaries, the Commissioner will establish, where necessary to meet the standards for thermal discharges, a lower maximum surface water temperature and a greater zone of passage under the procedures set forth in "Additional Limitations or Modifications."

Attachment 5—Draft Section 702.9—Thermal  
Discharges—revised September 28, 1971.

-4-

from July through September except that within a radius of 300 feet or equivalent area from the point of discharge this temperature may be exceeded. In coastal waters subject to stratification, discharges shall be confined to the epilimnion.

ESTUARIES —The water temperature at the surface of an estuary shall not be raised to more than 90°F at any point. Further, in at least 50 percent of the cross-sectional area and/or volume of the flow of the estuary including a minimum of at least 1/3 of the surface as measured from water edge to water edge at any stage of tide, shall not be raised to more than 4°F over the temperature that existed before the addition of heat of artificial origin or a maximum of 83°F, whichever is less<sup>1</sup> during the period from October through June or more than 1 1/2°F during the period July through September. Further the discharge must meet the additional requirement that no more than a distance of 1000 feet on the surface in any direction shall be raised more than 4°F over the temperature that existed before the addition of heat of artificial origin or a maximum of 83°F, whichever is less during the period from October through June or more than 1 1/2°F during the period from July through September.

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<sup>1</sup> see Ante

Attachment 5—Draft Section 702.9—Thermal  
Discharges—revised September 28, 1971.

-5-

Because of the studies that have been made on the estuarial portion of the Hudson River, the need for limiting the temperature rise here during July through September to 1 1/2°F is waived and the conditions specified for October through June will be permitted year-round.

ENCLOSED - No temperature arise except that which occurs naturally  
BAYS  
will be permitted in enclosed bays.

60 Letter to Hansler from Diamond, dated November  
22, 1971.

*Mr. Walker  
N.Y.K.  
Edison, N.J.*



HENRY L. DIAMOND  
COMMISSIONER

STATE OF NEW YORK  
DEPARTMENT OF  
ENVIRONMENTAL CONSERVATION

ALBANY

November 22, 1971

Dear Mr. Hansler:

This will acknowledge receipt of your letter dated November 10, 1971, concerning New York State's thermal criteria and the various attachments. All of these documents have been carefully reviewed.

We find that the criteria contained in Attachment E "Final Revised Draft - Section 702.9" which was recommended by a majority of the Federal Thermal Task Force is substantially the one arrived at by representatives of this department after consultation with the Task Force. Therefore we see no need for further negotiations before submitting this to a public hearing.

We will proceed in the very near future to hold the required public hearing according to our laws, rules and regulations. You will be kept informed of these arrangements and we appreciate your offer of expert testimony at the hearing.

Sincerely,

*Henry L. Diamond*

Commissioner

Mr. Gerald M. Hansler, P.E.  
Regional Administrator  
Region II Office  
26 Federal Plaza  
New York, New York 10007

cc: Mr. Durfor  
1/8/71

65 Letter to Governor Rockefeller from G. M.  
Hansler, dated January 17, 1973.

January 17, 1973

Honorable Nelson D. Rockefeller  
Governor of the State of New York  
Albany, New York 12201

Dear Governor Rockefeller:

In accordance with Section 303(a) of the Federal Water Pollution Control Act Amendments of 1972 (FWPCA), PL 92-500, the Environmental Protection Agency has reviewed the interstate water quality standards for the State of New York, 6 NYCRR 600-941. The standards for interstate waters shall remain in effect, with the exception of those standards recorded in this document, which were found to be inconsistent with the applicable requirements of the FWPCA.

EPA Policy

It is the policy of EPA in evaluating the adequacy of State water quality standards, under FWPCA, to determine necessary revisions in: (1) the definition of use classifications, (2) the water quality criteria applicable to various use classifications, and (3) the use classification of specific waterways. The implementation plan portion of water quality standards can be revised under the Section 402 permit program or the Section 303(e) planning process of the FWPCA and need not be handled as part of the water quality standards revision process.

It is EPA's further policy, to require all waters to receive a use classification which will protect those waters for:

- (A) recreational use in the water (whole body contact) and the preservation and propagation of desirable (indigenous) species of aquatic biota; or
- (B) recreational use on the water (fishing, wading, boating, etc.) and the preservation and propagation of desirable (indigenous) species of aquatic biota.

Use and value of water for public water supplies, agricultural, industrial, and other purposes, as well as navigation, shall also be considered in setting standards, but in no case, except as provided below, shall the

65 Letter to Governor Rockefeller from G. M.  
Hansler, dated January 17, 1973.

criteria supporting these uses be permitted to interfere with recreational uses and the preservation of desirable species of aquatic biota. (See Attachment I - Descriptions of Federal Use Classifications.)

Some waters, because of naturally occurring poor quality, man-made pollution or technological limitations may qualify for an excepted classification. This determination, however, must be made on a case by case basis following an analysis of each such area. The analysis should be based on presently available information and must contain sufficient data to support the request for exception based on natural condition of the water or on technological limitations prohibiting improvement of water quality to the degree necessary.

Detail as to the above EPA policy is contained in the document enclosed as Attachment II - Guidelines for Developing or Revising Water Quality Standards Under the Federal Water Pollution Control Act Amendments of 1972.

EPA's gauge for determining minimum acceptable water quality criteria is the Water Quality Criteria Report of the National Technical Advisory Committee to the Secretary of the Interior - April, 1968 (the "Green Book"), and other information provided from time to time by EPA. An example of "other information" is the summary evaluation and recommendations of the Federal Thermal Task Force regarding New York State revised thermal criteria. The "Green Book" criteria and the EPA recommendations on New York State thermal criteria are included in Attachment III - Minimum Federal Water Quality Criteria.

The antidegradation statement previously adopted by the State and approved by the Federal government, will remain in effect as part of the water quality standards for all navigable waters. Its application will be consistent with the goals, objectives and requirements of the various provisions of the Federal Water Pollution Control Act Amendments of 1972.

#### Unacceptable Use Classifications

The present Federally approved New York State use classifications that were found to be now inconsistent with the FWPCAA are listed below:

1. Part 701.3, Class D
2. Part 701.4, Class SD
3. Part 702.3, Class II
4. Part 702.4, Class II
5. Part 702.5, Class II

The above five use classifications were found not to be equivalent or better than the Federal Classes A or B as identified in Attachment I. These five use classification must be upgraded to at least the Federal B. level, unless an exception is requested by you and granted by the EPA in accordance with applicable procedures.

65 Letter to Governor Rockefeller from G. M.  
Hansler, dated January 17, 1973.

Unacceptable Water Quality Criteria

The minimum acceptable water quality criteria as abstracted from the "Green Book" are included in Attachment III. The required water quality criteria changes for each New York State use classification are given in Attachment IV - Required Changes in New York Water Quality Standards.

Waters Requiring Upgraded Use Classifications

All waters not classified at levels equivalent to Federal Classes A or B must be upgraded to a water use classification at least equivalent to Federal Class B, or higher where interstate or international agreements exist. The interstate waters in your State which are now classified at a level below Federal Class B and which must be upgraded are listed in Attachment V - Waters of the State of New York Requiring Upgrading to Federal Class B or the Equivalent State Use Classification and Waters of the State of New York/DRBC Requiring Upgrading to Federal Class A or the Equivalent NY/DRBC Use Classification.

Waters previously classified by State use classification at levels comparable to Federal Class B are not required to be upgraded to Federal Class A. However, you may, at this time, raise the classification of these waters if you so desire. For your convenience, a list of all interstate and intrastate waters, along with their present State use classification and their equivalent Federal classification (A or B), will follow under separate cover.

Actions Necessary On Part of State

The required changes in use classifications and water quality criteria enumerated herein specifically and solely apply to all interstate waters. This letter constitutes official notification of required State action. Similar changes will probably be required with respect to intrastate waters as well. However, official notification of such action on intrastate waters will be forthcoming in accordance with the time schedule outlined in the FWPCAA and the enclosed regulations (Attachment VI - Water Quality Standards, Notice of Interstate and Intrastate Standards Subject to Agency Review as published in the Federal Register, Vol. 37, No. 251-Friday, December 29, 1972).

Requests for exceptions to use classifications or criteria should be submitted to me with supporting documentation. If, based upon natural conditions or upon adequate socio-economic analyses, the desired uses are not possible, exceptions can be made. In these cases, the exceptions will be granted for a specific water body or for a specific criterion. If, for example, the State adequately demonstrates that natural or man-made conditions, which cannot be realistically controlled, preclude attainment of the desired water quality criterion for turbidity, this single criterion will be excepted for the body of water in question.

65 Letter to Governor Rockefeller from G. M.  
Hansler, dated January 17, 1973.

In accordance with Section 303(a)(1) of the FWPCAA, you are hereby notified that your present Federally approved interstate water quality standards must be revised and legally adopted as specified above within 90 days. However, if you desire to make the needed revisions, but cannot accomplish the task within ninety days, please continue the process and seek final adoption as soon as possible. The reason for this is that the law allows the States at least 310 days to adopt/necessary revisions before EPA must finally promulgate (90 days after notifying Governor or State agency; 30 days for EPA to promptly propose if State hasn't adopted; and an additional 190 days for EPA to promulgate if State hasn't finally adopted.)

It is hoped that New York State will move as expeditiously as possible to revise its standards as necessary, thereby obviating the necessity of Federal promulgation. My staff and I offer our fullest cooperation and assistance in your efforts to revise New York State interstate water quality standards.

Sincerely yours,

Gerald M. Hansler, P.E.  
Regional Administrator

**Attachments**

cc: Henry L. Diamond, Commissioner  
New York State Department of  
Environmental Conservation

Eugene Seebald, Director  
Pure Waters  
New York State Department of  
Environmental Conservation

R. D. Ricci  
C. N. Durfor

**Attachment I—Description of Federal Use Classifications.****Attachment I****Description of Federal Use Classification - A & B****Federal Class A: Primary Water Contact Recreation and Other Uses.\***

A surface water source intended for uses where the human body may come in direct contact with the raw water to the point of complete body submergence and for use in propagation and maintenance of desirable (indigenous) aquatic biota. The raw water may be ingested accidentally and certain sensitive body organs such as eyes, ears, nose and so forth may be exposed to the water. Although the water may be ingested accidentally it is not intended to be used as a potable supply unless acceptable treatment is applied. The water may be used for swimming, water skiing, skin diving and other similar activities, as a raw water source for public water supply, for growth and propagation of desirable (indigenous) populations of fish, other aquatic and semi-aquatic life and wildlife both marine and fresh water, for agricultural/industrial water supply, and for navigation.

**Federal Class B: Fish, Wildlife and Other Aquatic and Semi-Aquatic Life and Other Uses.\***

A surface water source suitable for all Class A uses except primary contact recreation. The uses include the growth and propagation of desirable (indigenous) populations of fish, other aquatic and semi-aquatic life and wildlife both marine and freshwater. The water may be used for trout habitat, warm water fish habitat, wildlife habitat and other similar uses and is also suitable for secondary water contact recreation such as fishing, boating or activities where ingestion of the water is not probable, as a raw water source for public water supply, for agricultural/industrial water supply, and for navigation.

\*Criteria for Classes A and B are equal to or more stringent than those of the USPHS applicable to a raw water source for public water supply.

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Water Quality Standards, dated January 1973.**

**Guidelines for  
Developing or Revising  
Water Quality Standards**

**United States Environmental Protection Agency**

**Water Quality Control Division**



**Environmental Protection Agency  
Water Planning Division  
Planning and Standards Branch  
Washington, D.C. 20640**

**January 1973**



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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

Jan. 5, 1973

Office of the  
Administrator

All Water Quality Officials:

The enactment of the Federal Water Pollution Control Act Amendments of 1972 imposes several legislative mandates with respect to the development and revision of water quality standards. In fulfilling its obligation to review and approve water quality standards adopted by the States, the Environmental Protection Agency will apply the policies and guidelines included in this document.

These policies and guidelines reflect both the knowledge gained from our initial effort to develop standards and additional requirements necessary to fulfill the goals and objectives of the 1972 Amendments.

Within the limits of our resources, the EPA will assist States in developing or revising their standards. I am sure that the spirit of cooperation experienced in our first standards effort and in subsequent water quality improvement programs will continue.

*William D. Ruckelshaus*

William D. Ruckelshaus  
Administrator

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**Attachment II—Guidelines for Developing or Revising  
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**A. WATERS COVERED BY THE ACT**

Water quality standards are to be established for and made applicable to all interstate and intrastate waters under the provisions of the Water Pollution Control Act Amendments of 1972 (FWPCA). The Act contains different time schedules for establishment and approval of intrastate standards depending upon whether or not a State now has such standards (see page 10). After adoption by the State and approval by EPA, standards will apply to all navigable waters; the terms interstate and intrastate will have no significance.

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B. OBJECTIVE, GOALS AND POLICIES

Objective

The objective of the Federal Water Pollution Control Act Amendments of 1972 is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. [Sec. 101(a)].

Goals

National goals established to achieve the stated objective include: (1) that the discharge of pollutants into the navigable waters be eliminated by 1985, [Sec. 101(a)(1)], (2) that wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water be achieved by July 1, 1983, [Sec. 101(a)(2)] and (3) that the water quality standards established shall be such as to protect the public health or welfare, enhance the quality of water and serve the purposes of this Act, [Sec. 303(a)(b)(c)].

Policies

The applicable policies are as follows:

- (1) The discharge of toxic pollutants in toxic amounts be prohibited. [Sec. 101(a)(3)].
- (2) Areawide waste treatment management planning processes be developed and implemented to assure adequate control of sources of pollutants in each State. [Sec. 101(a)(5)].
- (3) To recognize, preserve, and protect the primary responsibilities and rights of States to prevent, reduce,

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and eliminate pollution, to plan the development and use (including restoration, preservation, and enhancement) of land and water resources, and to consult with the Administrator in the exercise of this authority under this Act. [Sec. 101(b)]

(4) That the President, acting through the Secretary of State and such national and international organizations as he determines appropriate, shall take such action as may be necessary to insure that to the fullest extent possible all foreign countries shall take meaningful action for the prevention, reduction and elimination of pollution in their water and in international waters and for the achievement of goals regarding the elimination of discharge of pollutants and the improvement of water quality to at least the same extent as the United States does under its laws. [Sec. 101(c)]

(5) Public participation in the development, revision, and enforcement of any regulation, standard, effluent limitation, plan, or program established by the Administrator or any State under this Act shall be provided for, encouraged, and assisted by the Administrator and the States. [Sec. 101(e)]

(6) A continuing planning process be established in each State which would provide a management plan for ensuring that effluent reduction actions taken within the States are adequate for meeting water quality standards and that these actions are achieved in a timely and consistent manner. [Sec. 303(e)]

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C. POLICY GUIDELINES

Stream Use Classification Policy

The Policy:

It is the policy of the Environmental Protection Agency that all waters should be protected for recreational uses in and/or on the water and for the preservation and propagation of desirable species of aquatic biota as part of the national water quality standards program. Use and value of water for public water supplies, agricultural, industrial, and other purposes, as well as navigation, shall also be considered in setting standards, but in no case, except as provided below, shall the criteria supporting these uses be permitted to interfere with recreational uses and the preservation of desirable species of aquatic biota.

Recreational uses must be specified as either "primary contact" or "secondary contact." Desirable species of aquatic biota must be specified as "fresh warm water," "fresh cold water," or "marine waters." All future designations of stream uses and their associated criteria must, at a minimum, adhere to these classifications except as provided below.

Exceptions:

Some waters, because of naturally occurring poor quality, man-made pollution or technological limitations may qualify for an excepted classification. This determination, however, must be made on a case by case basis following an analysis of each such area. The analysis should be based on presently available information and must contain sufficient data to support the request for exception based on natural condition of the water or on technological limitations prohibiting improvement of water quality to the degree necessary. Applicable basin and/or area-wide plans, or portions thereof may satisfy the requirements of this

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analysis. In any case where the exception is based on technological limitations, the exception will be temporary, i.e. the exception will be reviewed at least every three years as required by Section 303(c).

Application:

In applying this policy, the terms "recreational uses" and "desirable species of aquatic biota" must be given common sense application. The existence of man-made pollution should be viewed as a problem to be solved, not as an impediment against assigning this use classification.

"Desirable species of aquatic biota" refers to the range of aquatic biota indigenous to an area. For example, waters appropriate for certain species of cold water biota should be protected for such biota rather than being warmed, even though the waters would, if warmed, support other, different species. In most cases, water for support of desirable aquatic biota and secondary contact recreation can be covered in one use classification.

The standards must provide that the most stringent criteria specified for each parameter shall be applicable where waters are classified for multiple uses.

Implementation Plan Policy

Due to the shortness of the deadlines in which revisions to implementation schedules must be made and the resources required to make these revisions, it will not be agency policy to encourage extensive implementation revisions. In those cases where the States and/or the Regional Administrator elect to revise implementation plans, the revisions will be as complete as possible.

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After the initial 180-day review period, (3 months for EPA review plus 90 days for any necessary State action), where implementation plan schedules are not valid or do not exist, or where they have not been recently revised for interstate as well as intrastate standards, the following process will be followed:

- (1) A detailed listing of point source dischargers, waste treatment and control requirements and schedules of compliance will be included as part of each State's continuing planning process under Section 303(e) of the new act.
- (2) The specific compliance schedules for each discharger will be determined as a condition of a permit issued under Section 402. The mechanism for including the permit conditions in the continuing planning process will be included in the 303 regulations which are now being drafted.

The dates established via this process will become the enforceable schedule even if the date is less stringent than the date in the water quality standards implementation plan. Where the dates of a water quality standard implementation plan are current and valid, the State will be encouraged to continue using the date in their 303 plans.

Water Quality Criteria Policy

Water quality criteria establish national water quality goals. They must reflect levels of water quality which will protect and enhance the quality of the waters to which they apply for all designated uses of such water.

Minimum criteria for specified water use classifications are the minimum recommended levels set by the National Technical Advisory

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Committee in its report to the Secretary of the Interior on Water Quality Criteria, April 1, 1968, and other information provided from time to time by EPA. The Example Water Quality Standard (page 16) contains an interpretation of the NTAC requirements for water quality criteria as applied to specified stream uses and illustrates the minimum acceptable levels. No criteria less restrictive than these minimum criteria will be approved unless it is affirmatively demonstrated to the Regional Administrator that the natural condition of the water does not exceed such lower quality.

The following should be stressed:

- A. Numerical values must be stated wherever possible.
- B. Biological or bioassay parameters shall be employed where numerical values are not practicable. (e.g., fish survival in zone of passage).
- C. Narrative descriptions may be employed where other values cannot be established. Such criteria shall include detail sufficient to show clearly the quality of water intended.

The measure of time period and limiting values which will govern for purposes of the criteria must be defined, e.g., annual arithmetic mean concentration. Where appropriate, the specified recurrence and duration of the accepted design stream flow should be defined, e.g., 7-day 10-year frequency return flow. Water quality criteria should be applied to the stream or other receiving water or portions thereof.

Antidegradation Policy

The antidegradation statements previously adopted by the States and approved by the Federal government, will remain in effect as part of the water quality standards for all navigable waters. Its application will be consistent with the goals, objectives and requirements of the various provisions of the Federal Water Pollution Control Act Amendments of 1972.

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General Policies

Minimum Acceptable Standards:

Water quality standards should be designed to "enhance the quality of water." If it is not possible to provide for prompt improvement in water quality at the time initial standards are set, the standards should be designed to prevent any increase in pollution. In no case will standards providing for less than existing water quality be acceptable except those satisfying the approved antidegradation provision.

Interstate Consistency:

State standards will be reviewed in terms of their consistency and comparability with those for affected waters of downstream or adjacent States. Coordination is encouraged among States to assure such consistency. Water quality standards should be in conformity with any comprehensive water pollution control program developed pursuant to the Federal Water Pollution Control Act Amendments of 1972, and should be revised to reflect any recommendations resulting as such programs and actions develop.

Revisions:

Water quality uses and criteria may be revised from time to time in accordance with various provisions of the Federal Water Pollution Control Act Amendments of 1972.

Clarification:

All "understandings" or "interpretations" attached to approved standards as conditions to their approval, prior to October 18, 1972, (the date of passage of the 1972 Amendments), should be incorporated into the standards during the revision period provided by the 1972 Amendments.

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**Format:**

To the degree possible, the format of State water quality standards should adhere to that indicated by the Example Water Quality Standard, page 16.

**Other Factors:**

Guidelines for those factors which apply to water quality criteria such as mixing zones, zones of passage, analytical testing procedures, stream flow, units of measurement, etc., are described in the Example Water Quality Standard, page 16.

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D. LEGISLATIVE REQUIREMENTS

Interstate Standards

1. The interstate water quality standards for each State, at the time of passage of the FWPCAA of 1972 will remain in effect. Section 303(a)(1).
2. If the Administrator determines that the water quality standards are not consistent with applicable requirements of this Act as in effect immediately prior to the date of enactment of the 1972 Amendments, he shall have 3 months to notify the State and specify the changes needed to meet such requirements. 1/ Section 303(a)(1).
3. The State receiving notification from the Administrator that standards are not acceptable has 90 days to make changes in standards. The Administrator shall promulgate such changes if the State fails to act. Section 303(a)(1).

Existing Intrastate Standards

4. Each State already having intrastate standards must submit water quality standards applicable to intrastate waters within 30 days after ~~enactment~~ of the FWPCAA of 1972. Each State standard will remain in effect unless the Administrator determines that such standard is inconsistent with the applicable requirements of this Act as in effect immediately prior to the enactment of the FWPCAA of 1972. Section 303(a)(2).
5. The Administrator has up to 120 days to notify the State after submission of such standards and specify the changes needed to meet such requirements. Section 303(a)(2).

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1/ The EPA Administrator has delegated the authority to review and approve water quality standards to each EPA Regional Administrator.

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6. The State must adopt such changes within ninety days after such notification. The Administrator shall promulgate such changes and publish proposed regulations if such changes are not adopted by the State. Section 303(a)(2).

New Intrastate Standards

7. Any State which prior to the date of enactment of the FWPCA of 1972 has not adopted standards applicable to intrastate waters shall have 180 days after the date of enactment of the FWPCA of 1972 to adopt and submit such standards to the Administrator. Section 303(a)(3)(A).
8. If the intrastate water quality standards are consistent with the applicable requirements of this Act the Administrator shall approve such standards. Section 303(a)(3)(B).
9. If the Administrator determines that the intrastate standards are not consistent with the applicable requirements of this Act as in effect immediately prior to the date of enactment he shall have ninety (90) days after the submission of such standards to notify the State and specify the changes to meet such requirements. If such changes are not adopted by the State within ninety (90) days after the date of notification, the Administrator shall promulgate such standards. Section 303(a)(3)(C).

Promulgation Procedure (Sec. 303(b)):

The Administrator shall promptly prepare and publish proposed regulations setting forth water quality standards for a State in accordance with the applicable requirements of this Act as in effect immediately prior

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to the date of enactment of the Federal Water Pollution Control Act Amendments of 1972 if, (a) the State fails to submit water quality standards within the time prescribed in Section 303(a) (paragraphs 1-9) or, (b) a water quality standard submitted by such State under Section 303(a) is determined by the Administrator not to be consistent with the applicable requirements of Section 303(a).

The Administrator shall promulgate any water quality standard published in a proposed regulation not later than 190 days after the date he publishes any such proposed standard, unless prior to such promulgation such State has adopted a water quality standard which the Administrator determines to be in accordance with Section 303(a).

Three Year Review Process

10. The Governor of a State or the State water pollution control agency of such State shall from time to time (but at least once each three year period beginning with the date of enactment of the FWPCA of 1972) hold public hearings for the purpose of reviewing applicable water quality standards and, as appropriate, modifying and adopting standards. Results of such review shall be made available to the Administrator, Section 303(c)(1).
11. Whenever the State revises or adopts a new standard, such revised or new standards shall be submitted to the Administrator. Such revised or new water quality standard shall consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses. Such standards shall be such as to protect the public health or welfare, enhance the quality of water and serve the purposes of this Act.

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Such standards shall be established taking into consideration their use and value for public water supplies, propagation of fish and wildlife, recreational purposes, and agricultural, industrial, and other legitimate uses, and also taking into consideration their use and value for navigation. (Consistent with stream use classification policy on page 4 of these guidelines). Section 3(c)(2).

12. The Administrator must act within sixty (60) days after the date of submission of the revised or new standard to determine whether such standard meets the requirements of this Act. Section 303(c)(3).
13. Approval by the Administrator shall thereafter be the water quality standard for the applicable waters of that State. Section 303(c)(3).
14. If the Administrator determines that any such revised or new standard is not consistent with the applicable requirements of this Act he shall have ninety (90) days from the date of submission of such standard to notify the State and specify the changes to meet such requirements. Section 303(c)(3).
15. If such changes are not adopted by the State within ninety days after the date of notification, the Administrator shall promulgate such standard.

**Promulgation Procedure (Sec. 303(c)(4):**

The Administrator shall promptly prepare and publish proposed regulations setting forth a revised or new water quality standard for the

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navigable waters involved -

- (A) if a revised or new water quality standard submitted by such State under paragraph (3) of subsection (C) of Section 303 is determined by the Administrator not to be consistent with the applicable requirements of this Act, or
- (B) in any case where the Administrator determines that a revised or new standard is necessary to meet the requirements of this Act.

The Administrator shall promulgate any revised or new standard not later than ninety days after he publishes such proposed standards, unless prior to such promulgation, such State has adopted a revised or new water quality standard which the Administrator determines to be in accordance with this Act.

Submission Procedures

Water quality standards or revisions thereto, must meet certain requirements of Federal law and administrative procedures. They also must comply with applicable State laws and administrative procedural requirements which vary from State to State. Public hearings are required to be held by the States in establishing or revising water quality standards. Transcripts or summaries of each hearing plus any supporting data used in formulating a State's proposed water quality standard should be available to the EPA upon request.

After adoption by the State, the proposed standards or revisions must be submitted to the Regional Administrator accompanied by (1) a letter from a duly authorized State official to the Regional Administrator requesting approval of the standards and (2) a statement by the State Attorney General that the proposed standards or revisions were duly adopted and will be enforceable by the State. Submission to the Regional Administrator shall be

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accomplished by delivering three copies of the standards or revisions to  
the appropriate Regional Office.

**ENVIRONMENTAL PROTECTION AGENCY - REGIONAL OFFICES**

<b>REGION I</b> John F. Kennedy Bldg. Boston, Mass. 02203	Maine New Hampshire Connecticut	Massachusetts Rhode Island Vermont
<b>REGION II</b> 26 Federal Plaza New York, N.Y. 10007	New York Puerto Rico	New Jersey Virgin Islands
<b>REGION III</b> 6th and Walnut Street Curtis Bldg. Philadelphia, Pa. 19106	Pennsylvania Maryland West Virginia	Delaware Virginia Dist. of Columbia
<b>REGION IV</b> 1421 Peachtree Street, N.E. Atlanta, Georgia 30309	Kentucky North Carolina South Carolina Mississippi	Tennessee Alabama Florida Georgia
<b>REGION V</b> 1 North Wacker Drive Chicago, Ill 60606	Minnesota Michigan Indiana	Wisconsin Illinois Ohio
<b>REGION VI</b> 1600 Patterson Street Dallas, Texas 75201	New Mexico Arkansas Texas	Oklahoma Louisiana
<b>REGION VII</b> 1735 Baltimore Ave. Kansas City, Mo. 64108	Nebraska Kansas	Iowa Missouri
<b>REGION VIII</b> 1860 Lincoln Street Denver, Colo. 80203	Montana Wyoming Utah	North Dakota South Dakota Colorado
<b>REGION IX</b> 100 California Street San Francisco, Calif. 94111	California Arizona Guam American Samoa	Hawaii Nevada Trust Territory of the Pacific Islands
<b>REGION X</b> 1200 Sixth Avenue Seattle, Washington 98101	Alaska Idaho	Oregon Washington

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**E. EXAMPLE WATER QUALITY STANDARD**

**WATER QUALITY STANDARD**

**FOR**

**(State)**

**Adopted by the Environmental  
Commission**

**Public Law 72-101 Section 12**

This example contains numerical values for water quality criteria as contained in the NTAC report and subsequent reports and suggests a format which clearly portrays the essential components of standards. It is not intended that the States adopt the actual wording used in the various sections of this example. It is expected that States will amplify the example using the specific water quality criteria that are geared to the States' needs.

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SECTION I

INTRODUCTION

It is the purpose of these rules and regulations to designate the uses for which the various waters of the State shall be maintained and protected; to prescribe the water quality standards required to sustain the designated uses; and to prescribe regulations necessary for implementing, achieving and maintaining the prescribed water quality, These regulations were developed in close cooperation with the U.S. Environmental Protection Agency in order that, consistent with (State statute reference) they also may serve the purposes of the FWPCA as amended.

Pursuant to the authority contained in (State statute reference) which authorized the issuance of regulations to restore, maintain, and enhance the quality of the waters of the State in order to protect health, welfare, property, and to assure that no contaminants are discharged into the waters without being given the degree of treatment or control necessary to prevent pollution, and to adopt water quality standards the (State Agency) adopts the following rules and regulations.

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SECTION II. EXAMPLE LETTERS

EXAMPLE FORMAT OF STANDARDS APPROVAL REQUEST LETTER

Mr. William T. Jackson  
Regional Administrator  
Environmental Protection Agency  
St. Louis, Pennsylvania

Dear Mr. Jackson:

In accordance with the provisions of Section 303 of the Federal Water Pollution Control Act Amendments of 1972, I am requesting formal approval of proposed revisions to (state)'s water quality standards, three copies of which are enclosed.

The revisions, if approved, will change our standards as follows: (or, as explained in a separate enclosure; or, will entirely supersede the existing criteria and/or use designations and/or implementation plan). Following your approval, the water quality standards of (state) will consist of the following:

The State adopted these revisions on (date). An opinion is enclosed from our Attorney General certifying that the revisions were duly adopted, following public hearings and that, if approved, they will be effective as of (date) and will be enforceable by the State.

I am happy to report that our new standards incorporate all the suggestions which your agency has provided (or, our new standards incorporated your agency's suggestions regarding (specify Federal suggestions adopted)). Your suggestions regarding (specify any suggestions not adopted) have been reviewed, and (specify anticipated schedule for adoption, or reasons for rejection). Of course, I appreciate the need for an ongoing review and upgrading of the standards, consistent with developing knowledge and understanding of the factors which affect water quality.

I look forward to learning of your approval of the revised standards in the near future, so that we may proceed with the important work of implementing our mutual goal of clean water for (state).

Sincerely yours,

Governor or other duly authorized official

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EXAMPLE FORMAT OF ATTORNEY GENERAL'S DECISION LETTER

Governor John Smith  
Middleville, (State)

(STATEMENT MAY BE ADDRESSED TO  
DEPARTMENT HEAD, GOVERNOR OR  
EPA REGIONAL ADMINISTRATOR.)

Dear Governor Smith:

I have reviewed the proposed Amendments to the Rules and Regulations Establishing Surface Water Criteria for the State of \_\_\_\_\_, as adopted by the (State Agency) on \_\_\_\_\_ (date), following a public hearing held by the Department on \_\_\_\_\_ (date). The amended rules and regulations were duly adopted pursuant to the authority contained in the (State Environmental Enhancement Act of 1969, as revised, 71 Stat. 432). The hearing was held in accordance with the provisions of the (State Administrative Procedure Act, O.S.A. 52: 14B et seq.)

The proposed regulations amend the use classifications and certain criteria assigned to protect those classifications previously approved by the Environmental Protection Agency on \_\_\_\_\_ (date). These proposed regulations apply to all navigable waters in (state).

On the basis of the above, I have concluded that the Rules and Regulations Establishing Surface Water Criteria for the State of \_\_\_\_\_ have been promulgated in accordance with State law and that they will be legally enforceable in the State.

Signature

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SECTION III.

ANTIDEGRADATION STATEMENT

Waters whose existing quality is better than the established standards as of the date on which set standards become effective will be maintained at their existing high quality. These and other waters of the state will not be lowered in quality unless it has been affirmatively demonstrated to the state water pollution control agency that such a change is justified as a result of necessary economic or social development, and will not interfere with or become injurious to any assigned uses made of or presently possible in such waters. This will require that any industrial, public or private project, or development which would constitute a new source of pollution or an increased source of pollution to high quality waters, will be required as part of the initial project design to provide the highest and best degree of waste treatment available under existing technology. Since these are also Federal standards, the waste treatment requirements will be developed cooperatively.

SECTION IV.

USE DEFINITION

Multiple use classifications incorporating such uses as public water supply, agricultural, industrial, and navigation are acceptable, as long as the waters are protected for primary contact recreation (Class A, p. 21) or for desirable species of aquatic biota or secondary contact recreation (Class B, p. 21), unless an excepted lower classification is justified as specified on page 4 of these Guidelines.

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Class A: Water Contact Recreation and Other Uses. A surface raw water source intended for uses where the human body may come in direct contact with the raw water to the point of complete body submergence. The raw water may be ingested accidentally and certain sensitive body organs such as eyes, ears, nose, and so forth may be exposed to the water. Although the water may be ingested accidentally it is not intended to be used as a potable supply unless acceptable treatment is applied. Water may be used for swimming, water skiing, skin diving, other similar activities, or as a raw water source for public water supply, 1/ support and propagation of aquatic fish and wildlife, agricultural, industrial and navigational uses.

Class B: Fish, Wildlife and Other Aquatic and Semi-Aquatic Life and Other Uses.

A surface raw water source, suitable for the growth and propagation of fish, other aquatic and semi-aquatic life both marine and freshwater; waterfowl; fur bearers; and wildlife. This water may be used for trout habitat, warm water fish habitat, wildlife habitat, and other similar uses. This water is also suitable for secondary water contact recreation such as fishing, wading, boating or activities where ingestion of the water is not probable or as a raw water source public water supply, agricultural, industrial and navigational uses.

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1/ Criteria for Classes A and B are equal to or more stringent than those applicable for public water supply use as stated in the report of the National Technical Advisory Committee to the Secretary of the Interior on Water Quality Criteria.

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**USE CLASSIFICATION**

**USE:**

- A - Water Contact Recreation and Other Uses
- B - Fish, Wildlife and Other Aquatic and Semi-Aquatic Life-Secondary Contact-Recreation and Other Uses

<u>STREAM</u>	<u>USE</u>
Red River Basin	
Red River -----	A
Red Run -----	B
Black River -----	A
Joseph River -----	A
Turtle Creek -----	B
Sandy Creek -----	A
Penn's Run -----	B
Clarion Creek -----	B
Muskingum River Basin	
Muskingum River -----	A
Denison River -----	B
Muskie Creek -----	B
Montgomery Lake -----	B
Lake Lutheran -----	A
Mace River -----	A
Stag Run -----	B
Wooster River (Rt. 197 Bridge to mouth) -----	A
Wooster River (Douglas Bridge to Rt. 197 Bridge) -----	B
Wooster River (State Line to Douglas Bridge) -----	A
Cambridge River -----	A
The Point -----	A
Unnamed Tributary to Cambridge River at Hebron -----	B
Coshocton Creek -----	B
Buckeye Lake -----	A
Universal Reservoir -----	B
Penn River Basin	
Penn River -----	A
Verona Creek -----	A
Etna Run -----	B
Oakmont River -----	B
Alcomia River (State Line to Lake Unity) -----	B
Alcomia River (Lake Unity to Rodi Bridge) -----	A
Alcomia River (Rodi Bridge to mouth) -----	A
Lake Unity -----	A

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SECTION V.

GENERAL WATER QUALITY CRITERIA

All surface waters shall meet the generally accepted aesthetic qualifications and shall be capable of supporting desirable diversified aquatic life, and these waters shall be:

- (1) Free from substances attributable to municipal, industrial or other discharges or agricultural practices that will settle to form objectionable sludge deposits.
- (2) Free from floating debris, scum and other floating materials attributable to municipal, industrial or other discharges or agricultural practices in amounts sufficient to be unsightly or deleterious.
- (3) Free from materials attributable to municipal, industrial or other discharges or agricultural practices producing color, odor or other conditions in such degree as to create a nuisance.
- (4) Free from substances attributable to municipal, industrial or other discharges or agricultural practices in concentrations or combinations which are toxic or harmful to human, animal, plant or aquatic life.

NOTE: Some States have designated certain streams or portions thereof where no discharge is permitted. These designations may continue to be applied using whatever description the State desires.

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**\* EXAMPLE WATER QUALITY CRITERIA SUMMARY BY USE CLASSIFICATION**

Use Class.	Micro-biological	Dissolved Oxygen	Temp.	Hydrogen Ion	**Dissolved Solids	Taste & Odor Producing Sub.	Dissolved Gas	Color & Turbidity Producing Substances
Class A Primary Contact Recreation (Swimming, water skiing & etc.)	Shall not exceed a geometric mean of 200 fecal coliform per 100 ml.	Not less than 5 mg/l. (Class B levels also apply.)	90°F. Max. Class B levels also apply.	Hydrogen Ion concentrations expressed as pH shall be maintained between 6.5 & 8.3.	Shall not exceed 500 mg/l. or one third above that characteristic of natural condition (whichever is less)	None in amounts that will interfere with water contact use.	Class B levels apply.	Secchi disc visible at min. depth of 1 meter.
Class B Desirable species of Aquatic Life & Secondary Contact Rec. (boating, fishing, and etc.)	Shall not exceed a geometric mean of 10,000 total coliform of 2,000 per 100 ml. (Fecal coliform counts are preferred.)	Not less than 5 mg/l (except for 4 mg/l for short periods of time within a 24 hour period.) Not less than 6 mg/l in trout waters. Not less than 5 mg/l in marine waters.	Cold Water (Trout) 5°F rise. Max. of 68°F.  Warm Water (Bass etc.) 5°F rise in streams. 3°F degree in impoundments. Max. 90°F.  Marine Water 1 1/2°F. rise	Hydrogen Ion concentrations expressed as pH shall be maintained between 6.0 & 9.0.	Shall not exceed one-third above that characteristic of natural conditions.	Shall contain no substances which will render any undesirable taste dissolved to fish flesh or in any other way make fish inedible.	Cold Water Total dissolved gas pressure not to exceed 100 percent of existing atmospheric pressure.	Cold waters 10 JU Warm Waters 50 JU Marine Waters Secchi disc visible a minimum depth of 1 meter.

\* The water quality criteria for Classes A and B are compatible with uses for PWS, agricultural, industrial and navigation.

\*\* Not applicable to Marine Water. The criteria for this parameter cannot be uniformly applied to all surface waters. Criteria commensurate with natural regional differences should be applied regionally.

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Radioactivity

Gross Beta	1,000 picocuries per liter
Radium-226	3 picocuries per liter
Strontium-90	10 picocuries per liter

Phosphorus: Phosphorus as P shall not exceed 100 ug/l in any stream nor exceed 50 ug/l in any reservoir or lake, or in any stream at the point where it enters any reservoir or lake.

Suspended Colloidal or Settleable Solids: None from waste water source which will permit objectionable deposition or be deleterious for the designated uses.

Oil and Floating Substances: No residue attributable to waste water nor visible film oil or globules of grease.

MIXING ZONES

The total area and/or volume of a receiving stream assigned to mixing zones be limited to that which will: (1) not interfere with biological communities or populations of important species to a degree which is damaging to the ecosystem; (2) not diminish other beneficial uses disproportionately.

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ZONES OF PASSAGE

In river systems, reservoirs, lakes, estuaries and coastal waters, zones of passage are continuous water routes of the volume, area and quality necessary to allow passage of free-swimming and drifting organisms with no significant effects produced on their populations. These zones must be provided wherever mixing zones are allowed.

Because of varying local physical and chemical conditions and biological phenomena no single value can be given on the percentage of river width necessary to allow passage of critical free-swimming and drifting organisms so that negligible or no effects are produced on their populations. As a guideline, mixing zones should be limited to no more than 1/4 of cross-sectional area and/or volume of flow of stream or estuary, leaving at least 3/4 free as a zone of passage.

ANALYTICAL TESTING

All methods of sample collection, preservation, and analysis used in applying any of the rules and regulations in these standards shall be in accord with those prescribed in "Standard Methods for the Examination of Water and Waste Water," Thirteenth Edition, or any subsequent edition with other generally accepted procedures.

STREAM FLOWS

The water quality standards shall apply at all times except during periods when flows are less than the average minimum seven-day low flow which occurs once in ten years.

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**DEFINITION OF COMMON TERMS:**

<u>TERM</u>	<u>MEANING</u>
Biochemical Oxygen Demand (BOD)	The measure of the amount of oxygen necessary to satisfy the biochemical oxidation requirements of pollutants at the time the sample is collected; unless otherwise specified, this term will mean the 5 day BOD incubated at 20°C.
Coliform Group Organisms (Total Coliform Organisms)	All of the aerobic and facultative anaerobic gram-negative, non-spore-forming rod shaped bacteria that ferment lactose broth with gas formation within 48 hours at 35°C.
Colloidal Substances	Minute clay or other substances which do not settle out without the use of a flocculant.
Combined Sewer	A sewer receiving both wastewater and land run-off.
Desirable Species	Species indigenous to the area.
Dilution Ratio	The ratio of the seven-day once in ten years low flow of the receiving stream to the average dry weather flow of the treatment works for the design year.
Disinfection	A method of reducing the pathogenic or objectionable microorganisms by means of chemicals or other acceptable means.
Dissolved Oxygen (DO)	A measure of the amount of free oxygen in the water.
Effluent	Any point source wastewater discharged, directly or indirectly to the waters of the State or to any storm sewer, and the runoff from land used for the disposition of wastewater or sludges.

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<u>TERM</u>	<u>MEANING</u>
Fecal Coliform	The portion of the coliform group which is present in the gut or the feces of warm-blooded animals. It generally includes organisms which are capable of producing gas from lactose broth in a suitable culture medium within 24 hours at $44.5^{\circ} \pm 0.5^{\circ}\text{C}$ .
Industrial Wastes	Any solid, liquid, or gaseous wastes resulting from any process, or from excess energy, of industry, manufacturing, trade, or business or from the development, processing, or recovery, except for agricultural crop raising, of any natural resources.
Interstate Waters	All waters which cross or form a part of the border between States.
Intrastate Waters	All waters of the State which are not interstate waters.
Membrane Filter	A technique of bacteriological analysis. This technique involves the running of a certain volume of water through a cellulose ester wafer which is then impregnated with growth media for bacteria.
Milligrams per Liter (mg/l)	Milligrams of solute per liter of solution-equivalent to parts per million-assuming unit densit:
Navigable Waters	The waters of the United States, including the territorial seas.
Pollutant	Dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munition, chemical waste, biological materials, radioactive material heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharge into water.

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<u>TERM</u>	<u>MEANING</u>
Pollution	The man-made or man-induced alteration of the chemical, physical, biological, and radiological integrity of water.
Primary Contact	Any recreational or other water use in which there is prolonged and intimate contact with the water involving considerable risk of ingesting water in quantities sufficient to pose a significant health hazard, such as swimming and water skiing.
Public and Food Processing Water Supply	Any water use in which water is withdrawn from surface waters of the State for human consumption or for processing of food products intended for human consumption.
Schedule of Compliance	A schedule of remedial measures including an enforceable sequence of actions or operations leading to compliance with an effluent limitation, other limitation, prohibition, or standard.
Secondary Contact	Any recreational or other water use in which contact with the water is either incidental or accidental and in which the probability of ingesting appreciable quantities of water is minimal, such as fishing, commercial and recreational boating and any limited contact incident to shore line activity.
Sewage	Water-carried human and related wastes from any source together with associated land runoff.
Stream Flow	The non-tidal water movement that occurs in a natural channel.

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<u>TERM</u>	<u>MEANING</u>
Temperature	A measure of the heat content of water. While stream temperature is affected naturally, man significantly affects it through construction and operation of dams and the discharge of cooling waters from industrial processes, particularly power generation.
Toxic Materials	Materials which are harmful to human, plant, animal, and aquatic life. These may include hundreds of compounds present in various waters, such as industrial waste discharges or runoff from where pesticides have been applied.
Treatment Works	Those constructions or devices, individually or collectively, except sewers, used for collecting, pumping, treatment, or disposing of wastewaters or for the recovery of by-products from such wastewater.
Wastewater	Sewage, industrial waste, or other waste, or any combination of these, whether treated or untreated, plus any admixed land runoff.
Wastewater Source	Any equipment, facility, or other point source of any type whatsoever which discharges wastewater directly or indirectly (except through a sewer tributary to a treatment works), to the waters of the State.
Waters	All accumulations of water, surface and underground, natural, and artificial, public and private or parts thereof, which are wholly or partially within, flow through or border upon the State, except that sewers and treatment works are not included.

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<u>TERM</u>	<u>MEANING</u>
Water Quality Standards (Current, until initial revision period under FWPCAA of 1972 has ended)	The designated stream uses or classifications, criteria to protect those uses, implementation and enforcement plans, and the antidegradation statement.
Water Quality Standards (Subsequent to intital revision period under Section 303(a) of FWPCAA of 1972)	The designated uses of the navigable waters involved, the water quality criteria for such waters based upon such uses, and the antidegradation statement.

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F. OPERATING PROCEDURES

STEP I

States having intrastate standards were requested to submit them by November 18, 1972, to the appropriate EPA Regional Office for review and approval. States not now having intrastate standards must adopt and submit them to EPA by April 18, 1973.

Submission accomplished by:

- (1) Letter from responsible State official that intrastate standards are contained in same documents as interstate standards now on file with EPA, or,
- (2) Submittal of a complete standards package to the Regional Administrator.

STEP 2

The EPA Regional Administrator immediately begins to review existing interstate and intrastate water quality standards. He conducts the review in the following manner working closely with the State:

USES

--Review each individual stream use designation for conformity with national policy requirements (see page 4 of these Guidelines). If stream designations meet requirements, no further action is needed. If streams are not in conformity with the requirements, advise State in the manner specified in Step 3 below.

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CRITERIA

--Review water quality criteria for adherence to NTAC recommended minimums (see pages 23-26 of these Guidelines) for interpretation of NTAC report. If water quality criteria are consistent with national policy requirements, no further action is needed. If water quality criteria need to be upgraded, advise the State in the manner specified in Step 3 below.

OTHER FACTORS

--many previously approved standards contain supplemental understandings, agreements, or interpretations. These should all be reviewed, and if still applicable, made an integral part of the water quality standards.

--clarity of the standards, uniformity of format, interstate and interregional consistency must be considered during the review process.

STEP 3

After the above cooperative review, each Regional Administrator shall, by letter, not later than January 18, 1973, officially notify States of the revisions that are required in interstate water quality standards which the Regional Administrator expects the State to adopt within ninety (90) days. The letter should be sent to the Governor of the affected State. If no letter is sent by January 18, 1973, the standards previously submitted will remain in effect.

STEP 4

The States have 90 days from notification to adopt the EPA-recommended revisions.

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Water quality standards or revisions thereto, must meet certain requirements of Federal law and administrative procedures (see page 14 of these Guidelines). They also must comply with applicable State laws and administrative procedural requirements which vary from State to State. After adoption by the State, the proposed standards or revisions must be submitted to the Regional Administrator accompanied by (1) a letter from an authorized official to the Regional Administrator requesting approval of the standards, and (2) a statement by the State Attorney General that the proposed standards or revisions were duly adopted and will be enforceable by the State. Submission to the Regional Administrator shall be accomplished by delivering three copies of the standards or revisions to the appropriate Regional Office. (Sample letters are included, on pages 18 and 19.)

STEP 5

The Regional Office must review each submittal to determine compliance with national policies and goals. A checklist to aid in this review is included on page 500-9 of the Water Quality Standards Regional Guide issued in September 1972.

Regional review and approval procedures are as follows:

- A. If the proposal conforms with national policies, the region should:

1. Obtain the official proposal, including the official request for approval and State Attorney General's letter.

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2. Prepare an approval letter. (Sample enclosed on page 500-19 of the Water Quality Standards Guide issued in September 1972.)
3. Transmit to Headquarters:
  - a. For the national public files,
    - i. An official copy of the standards to be approved,
    - ii. An official copy of the State submittal documentation.
  - b. A draft Federal Register notice.  
(Sample enclosed on page 500-21 of the Water Quality Standards Regional Guide issued in September 1972 and EPA order 1390.)

STEP 6

If the State adopted water quality standards do not meet the requirements specified in the policy section of these Guidelines and the suggested revisions offered by the Regional Administrator, the EPA must promptly publish proposed water quality standards for that State in the Federal Register. The law does not define "promptly". We shall consider it to mean within 30 days.

--each Regional Office will prepare the draft Federal Register statement and forward same to the Branch of Planning and Standards for processing.

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--EPA must promulgate standards 190 days after initial publication unless the State has adopted approvable standards in the interim.

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**G. APPENDIX**

**ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460**

OFFICE OF THE  
ADMINISTRATOR

November 8, 1972

Memorandum

To : All Regional Administrators  
Subject : Water Quality Standards Review and Revision

The enactment of the Federal Water Pollution Control Act Amendments of 1972 imposes several legislative mandates with respect to the review and revision of Water Quality Standards. These requirements include (1) the inclusion of intrastate standards in the standards program under provisions of the prior Federal Water Pollution Control Act, and (2) review and revision of the interstate water quality standards as they were developed and approved under the prior Act for adherence to the provisions of the prior Act.

Because of their importance in issuing municipal and industrial permits, review and revision of the standards will be a priority task in implementing the provisions of the 1972 Amendments. Water Quality Standards uses and criteria and implementation plan sections of the standards are to be revised by EPA in conjunction with the States in accordance with the following policy:

-- (1) In reviewing and providing guidance to the States with respect to revision of the "uses" and "criteria" EPA will require that the goals and policies in effect prior to the 1972 Amendments continue to apply. Under these goals and policies, State waters should be classified for uses that will permit "recreation in or on the water" and "the support and propagation of desirable species of aquatic wildlife."

-- (2) The water quality criteria to support these uses are those contained in the National Technical Advisory Committee's Green Book Report, and should be uniformly applied to both interstate and intrastate waters.

-- (3) Use designations and criteria established by States bordering interstate waters should be revised if necessary to make them consistent.

-- (4) Exceptions to classifications lower than that for recreation and fish and wildlife should be justified. If, based upon natural conditions or upon defensible socio-economic analyses,

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the desired uses are not possible, exceptions can be made. In these cases, the exceptions should be on specific criteria basis. If, for example, the State adequately demonstrates that natural conditions or man-made conditions that cannot be realistically controlled preclude reaching the desired water quality criterion for turbidity, then only this criterion should be excepted for the body of water in question.

-- (5) Note it is not Agency policy to upgrade now use designations for all waters to meet the 1983 level.

-- (6) All State standards now contain an antidegradation statement. Antidegradation is compatible with the goals of the Act, therefore, no actions should be taken to revise such statements. The existing statement should be included in the revised standards.

Under the prior FWPCA, implementation plans were an integral part of the standards and are therefore subject to review and revision. Because other programs under the 1972 Amendments affect the schedules as now contained in many implementation plans, we will not require an extensive general revision of implementation plans. We are now canvassing the Regions to determine the desired extent of these revisions. (. . . see page 5 of these Guidelines)

The schedule for completing the initial revisions of water quality standards under Sections 303(a), (b) is:

Time	Requirements
November 18, 1972	States submit existing intrastate standards.
January 18, 1973	EPA reviews existing interstate standards; notifies States of necessary revisions.
March 18, 1973	EPA reviews existing intrastate standards; notified States of necessary revisions.
April 18, 1973	States adopt revisions to interstate standards or EPA initiates promulgation action.
	States submit new intrastate standards.
June 18, 1973	States adopt revisions to intrastate standards or EPA initiates promulgation action.
July 18, 1973	EPA reviews new intrastate standards; notifies States of necessary revisions.
October 18, 1973	States adopt revisions to new interstate standards or EPA initiates promulgation action.

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Water Quality Standards, dated January 1973.**

Your water quality standards Coordinators on November 9 will be reviewing and commenting on guidance to carry out the above policies. Once completed, copies of the Guidelines will be forwarded to you.

(ORIGINAL MEMO SIGNED BY)

**Robert W. Fri**  
**Deputy Administrator**

\* U.S. GOVERNMENT PRINTING OFFICE :1973-514-151 (146)

## Attachment III—Minimum Federal Water Criteria.

## Attachment III

Minimum Federal Water Quality Criteria1. General Water Quality Criteria\*

All surface waters shall meet generally accepted aesthetic qualifications and shall be capable of supporting diversified aquatic life. These waters shall be free of substances attributable to discharges or waste as follows:

- 1.1 Materials that will settle to form objectionable deposits.
- 1.2 Floating debris, oil, scum, and other matter.
- 1.3 Substances producing objectionable color, odor, taste, or turbidity.
- 1.4 Materials, including radionuclides, in concentrations or combinations which are toxic or which produce undesirable physiological responses in human, fish and other animal life, and plants.
- 1.5 Substances and conditions or combinations thereof in concentrations which produce undesirable aquatic life.

2. Specific Water Quality

## 2.1 For All Waters

## 2.1.1 Key Parameters

## 2.1.1.1 Dissolved Oxygen (DO)

- a). Cold Fresh Waters (Trout Spawning)  
Not less than 7.0 mg/l from other than natural conditions.

\*Note: An example of how this statement may be expanded is shown in the Example Water Quality Standards, Attachment III, Part E.

## Attachment III—Minimum Federal Water Criteria.

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## b) Cold Fresh Waters (Trout)

Not less than 6.0 mg/l except that the DO may be between 5.0 and 6.0 for not more than 4 hours within any 24 hour period provided the water quality is favorable in all other respects and normal daily and seasonal fluctuations occur. In large streams that have some stratification or that serve principally as migratory routes DO levels may range between 4.0 and 5.0 mg/l for periods up to 6 hours, but in no case shall the DO be below 4.0 mg/l.

## c) Fresh Waters (Streams, Unstratified Lakes and Epilimnion of Stratified Lakes)

Not less than 5.0 mg/l except that the DO may be between 4.0 and 5.0 mg/l for not more than 4 hours within any 24 hour period provided the water quality is favorable in all other respects, but in no case shall the DO be less than 4.0 mg/l.

## d) Fresh Waters (Hypolimnion of Stratified Lakes)

Not less than 6.0 mg/l from other than natural conditions.

## e) Marine Waters (Coastal)

Not less than 5.0 mg/l from other than natural conditions.

## f) Estuarine Waters (Estuaries and Tidal Tributaries)

Not less than 5.0 mg/l from other than natural conditions. A DO of between 4.0 and 5.0 mg/l will be permitted for infrequent intervals and for limited periods of time where salinity is reduced (near the salt line), but at no time shall the DO be less than 4.0 mg/l.

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## 2.1.1.2 Recommended Thermal Criteria as Determined by the Federal Thermal Task Force, November 1971.

## DEFINITIONS

- a) A thermal discharge is one which results or would result in a temperature rise of the receiving water above the permissible temperature rises listed below.
- b) The term "addition of heat of artificial origin" as used throughout the criteria shall include all heat from other than natural sources. In the event of multiple and proximate discharges, consideration shall be given to the cumulative effects of such discharges.
- c) Coastal waters are those marine waters within the territorial limits of the state other than estuaries and enclosed bays. For the purposes of thermal discharges the main body of Long Island Sound is designated as coastal waters.
- d) Estuaries are the tidal portions of all rivers and streams.
- e) Enclosed bays are those marine waters within the territorial limits of New York State, other than coastal waters of estuaries, in which exchange of sea water is severely limited by barrier beaches. Specifically these are Jamaica Bay, Hempstead Bay, Great South Bay, Moriches Bay, Shinnecock Bay and Mecox Bay.

## CRITERIA

NON-TROUT WATERS - The water temperature at the surface of a stream shall not be raised to more than 90°F at any point. Further, in at least 50 percent of the cross sectional area and/or volume of the flow of the stream including at least a minimum of 1/3 of the surface as measured from shore to shore shall not be raised to more than 5°F at any point over the temperature that existed before the addition of heat of artificial origin or to a maximum of 86°F whichever is less.<sup>1</sup> Further, the discharge must meet the additional requirement that no more than a distance of 1000 feet on the surface in any direction shall be raised more than 5°F over the temperature that existed before the addition of heat of artificial origin or to a maximum of 85°F, whichever is less.

<sup>1</sup> It is recognized that because of widely varying conditions in stream and estuaries, the Department of Environmental Conservation will establish, where necessary to meet the standards for thermal discharges, a lower maximum surface water temperature and a greater zone of passage.

## Attachment III—Minimum Federal Water Criteria.

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For the protection of the aquatic biota from severe temperature changes, routine shutdown of an entire thermal discharge at any site should not be scheduled during the period from December through March.

TROUT  
WATERS

No discharge at a temperature over 70°F will be permitted at any time to streams classified for trout. From June through September, no discharges at any temperature will be permitted that will raise the temperature of the stream more than 2°F over that which existed before the addition of heat of artificial origin. From October through May, no discharges at any temperature will be permitted that will raise the temperature of the stream more than 5°F over that which existed before the addition of heat of artificial origin or to a maximum of 50°F whichever is less.

LAKES AND  
RESERVOIRS-

The water temperature at the surface of a lake shall not be raised more than 3°F over the temperature that existed before the addition of heat of artificial origin, except that within a radius of 300 feet or equivalent area from the point of discharge, this temperature may be exceeded. In lakes subject to stratification, the thermal discharges shall be confined to the epilimnion.

COASTAL  
WATERS

The water temperature at the surface of coastal waters shall not be raised more than 4°F over the temperature that existed before the addition of heat of artificial origin from October through June nor more than 1.5°F from July through September except that within a radius of 300 feet or equivalent area from the point of discharge this temperature may be exceeded. In coastal waters subject to stratification, discharges shall be confined to the epilimnion.

## ESTUARIES -

The water temperature at the surface of an estuary shall not be raised to more than 90°F at any point. Further, in at least 50 percent of the cross-sectional area and/or volume of the flow of the estuary including a minimum of at least 1/3 of the surface as measured from water edge to water edge at any stage of tide, shall not be raised to more than 4°F over the temperature that existed before the addition of heat of artificial origin during the period from October through June or more than 1 1/2°F during the period July through September or a

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maximum of 83°F, whichever is less.<sup>1</sup> Further, the discharge must meet the additional requirement that no more than a distance of 1000 feet on the surface in any direction shall be raised more than 4°F over the temperature that existed before the addition of heat of artificial origin or a maximum of 83°F, whichever is less during the period from October through June or more than 1 1/2°F during the period from July through September. Because of the studies that have been made on the estuarial portion of the Hudson River, the need for limiting the temperature rise here during July through September to 1 1/2°F is waived and the conditions specified for October through June will be permitted year-round.

ENCLOSED  
BAYS

No temperature rise except that which occurs naturally will be permitted in enclosed bays.

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<sup>1</sup> see Ante

**Attachment III—Minimum Federal Water Criteria.**

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**2.1.1.3 Dissolved Solids****a) Fresh Waters**

Maximum dissolved solids of 500 mg/l or one third above (133%) natural characteristic levels, whichever is less.

**b) Marine Waters**

Not applicable.

**2.1.1.4 Dissolved Gas****a) Cold Waters (Fresh & Marine)**

Total dissolved gas pressure not to exceed 110 percent of existing atmospheric pressure.

**2.1.1.5 Phosphorus as total P shall not exceed 100  $\mu\text{g}/\text{l}$  in any stream nor exceed 50  $\mu\text{g}/\text{l}$  in any reservoir, lake, estuary or offshore water, or at any point where it enters these receiving waters.****2.1.1.6 Suspended, Colloidal or Settleable Solids: None from waste water sources which will cause deposition or be deleterious for the designated uses.****2.1.1.7 Oil and Floating Substances: No residue attributable to waste water nor visible oil film nor globules of grease.****2.1.2 Radioactivity (USPHS - Drinking Water Standards shall apply)**

**2.1.2.1 Gross Beta** 1,000 picocuries per liter in the absence of Sr<sup>90</sup> and alpha emitters.

**2.1.2.2 Radium-226** 3 picocuries per liter

**2.1.2.3 Strontium-90** 10 picocuries per liter

**2.2 Class A Waters**

**2.2.1 Microbiological** - shall not exceed a geometric mean of 200 fecal coliforms (MPN) per 100 ml.

**Attachment III—Minimum Federal Water Criteria.****III-7**

2.2.1 a) Shellfish - National Shellfish Sanitation Program (NSSP) microbiological standards shall apply, i.e. shall not exceed a median of 70 total coliforms (MPN) per 100 ml.

2.2.2 pH - shall be maintained between 6.5 and 8.3

pH - Marine - Normal range of pH must not be extended at any location by more than  $\pm 0.1$  pH unit. At no time shall the pH be less than 6.7 or greater than 8.3.

2.2.3 Taste and Odor Producing Substances - None in amounts that will interfere with use for primary contact recreation, potable water supply or will render any undesirable taste or odor to edible aquatic life.

2.2.4 Color and Turbidity - a Secchi disc shall be visible at a minimum depth of 1 meter.

**2.3 Class B Waters**

2.3.1 Microbiological - shall not exceed a geometric mean of 10,000 total coliforms or of 2,000 fecal coliforms (MPN) per 100 ml (Fecal coliform counts are preferred).

2.3.1 a) Shellfish - National Shellfish Sanitation Program (NSSP) standards shall apply, i.e. shall not exceed a median of 70 total coliforms (MPN) per 100 ml.

2.3.2 pH - shall be maintained between 6.0 and 9.0

pH - Marine - Normal range of pH must not be extended at any location by more than  $\pm 0.1$  pH unit. At no time shall the pH be less than 6.7 or greater than 8.5.

2.3.3 Taste and Odor Producing Substances - None in amounts that will interfere with the use for potable water supply or will render any undesirable taste or odor to edible aquatic life.

**2.3.4 Color and Turbidity**

a) Cold Waters - 10 Jackson Turbidity units (JTU)

b) Warm Waters - 50 Jackson Turbidity units (JTU)

c) Marine Waters - a Secchi disc shall be visible at a minimum depth of 1 meter.

**Attachment III—Minimum Federal Water Criteria.**

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**3. Mixing Zones**

The total area and/or volume of a receiving stream assigned to mixing zones shall be limited to that which will: (1) not interfere with biological communities or populations of important species to a degree which is damaging to the ecosystem; (2) not diminish other beneficial uses disproportionately.

**4. Zones of Passage**

In river systems, reservoirs, lakes, estuaries and coastal waters, zones of passage are continuous water routes of the volume, area and quality necessary to allow passage of free-swimming and drifting organisms with no significant effects produced on their populations. These zones must be provided wherever mixing zones are allowed.

Because of varying local physical and chemical conditions and biological phenomena, no single value can be given on the percentage of river width necessary to allow passage of critical free-swimming and drifting organisms so that negligible or no effects are produced on their populations. As a guideline, mixing zones should be limited to no more than 1/4 of cross-sectional area and/or volume of flow of stream or estuary, leaving at least 3/4 free as a zone of passage.

**5. Analytical Testing**

All methods of sample collection, preservation, and analysis used in applying any of the rules and regulations in these standards shall be in accord with those prescribed in "Standard Methods for the Examination of Water and Waste Water," Thirteenth Edition, or any subsequent edition with other generally accepted procedures.

**6. Stream Flow**

The water quality standards shall apply at all times except during periods when flows are less than the average minimum seven-day low flow which occurs once in ten years.

Attachment IV—Required Changes in New York  
Water Quality Standards.

Attachment IV

Required Changes in New York Water Quality Standards

<u>Items*</u>	<u>State/Federal Classification</u>	<u>Required Changes**</u>
<u>701.3</u>	<u>Class AA/A</u>	
1. Floating solids; etc.		Federal Criteria 1.1, 1.2, & 1.3 must apply.
2. Effluents		Should specifically include coliform criteria contained in Federal Criteria 2.2.1.
3. pH		Federal Criteria 2.2.2 must apply, specifically: the upper limit of pH range should be 8.3.
4. D.O.		Federal Criteria 2.1.1.1 must apply, specifically: for trout $\geq$ 6.0 mg/l (2.1.1.1b) for non-trout $\geq$ 5.0 mg/l (2.1.1.1c)
5. Toxics		Federal Criteria 1.4, and 2.1.2 must apply.  Appropriate Federal Criteria contained in 1,2.1, 2.2, 3, 4, 5 & 6 not cited above must also apply.
<u>701.3</u>	<u>Class A/A</u>	
1. Floating solids; etc.		Federal Criteria 1.1, 1.2, & 1.3 must apply.
2. Effluents		Should specifically include coliform criteria contained in Federal Criteria 2.2.1.
3. Odor Producing Subs.		Federal Criteria 2.2.3 must apply.
5. pH		Federal Criteria 2.2.2 must apply, specifically: the upper limit of pH range must be 8.3.
6. D.O.		Federal Criteria 2.1.1.1 must apply, specifically: Trout waters $\geq$ 6.0 mg/l (2.1.1.1b) Non-trout waters $\geq$ 5.0 mg/l (2.1.1.1c)
7. Toxics		Federal Criteria 1.4 and 2.1.2 must apply.  Appropriate Federal Criteria contained in 1,2.1, 2.2, 3, 4, 5 & 6 not cited above must also apply.

\*Items refer to sections of 6 NYCRR

\*\*Except where otherwise noted changes refer to sections of Attachment III.

**Attachment IV—Required Changes in New York  
Water Quality Standards.**

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<u>Items*</u>	<u>State/Federal Classification</u>	<u>Required Changes**</u>
<u>701.3</u>	<u>Class B/A</u>	
1. Floating solids; etc.		Federal Criteria 1.1, 1.2 & 1.3 must apply.
2. Effluents		Should specifically include coliform criteria contained in Federal Criteria 2.2.1.
3. pH		Federal Criteria 2.2.2 must apply, specifically: the upper limit of pH range must be 8.3.
4. D.O.		Federal Criteria 2.1.1.1 must apply, specifically: Trout waters $\geq$ 6.0 mg/l (2.1.1.1b) Non-trout waters $\geq$ 5.0 mg/l (2.1.1.1c)
5. Toxics		Federal Criteria 1.4 and 2.1.2 must apply.  Appropriate Criteria contained in 1,2.1, 2.2, 3, 4, 5 & 6 not cited above must also apply.
<u>701.3</u>	<u>Class C/B</u>	
1. Floating solids; etc.		Federal Criteria 1.1, 1.2, & 1.3 must apply.
2. pH		Conforms with Federal Criteria 2.3.2.
3. D.O.		Federal Criteria 2.1.1.1 must apply, specifically: Trout waters $\geq$ 6.0 mg/l (2.1.1.1b) Non-trout waters $\geq$ 5.0 mg/l (2.1.1.1c)
4. Toxics		Federal Criteria 1.4 & 2.1.2 must apply.  Appropriate Federal Criteria contained in 1,2.1, 2.3, 3, 4, 5 & 6 not cited above must also apply.
<u>701.3</u>	<u>Class D/B</u>	
Use Description		The use description must be upgraded to conform with Federal Use Class B (Attachment I, Section 2) as a minimum. Federal Criteria 1.1, 1.2 & 1.3 must apply.
1. Floating solids; etc.		Federal Criteria 2.3.2 must apply. Federal Criteria 2.1.1.1 must apply. Federal Criteria 1.4 & 2.1.2 must apply.
2. pH		
3. D.O.		
4. Toxics		
		Appropriate Federal Criteria contained in 1,2.1, 2.3, 3, 4, 5, & 6 not cited above must also apply.

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**Attachment IV—Required Changes in New York  
 Water Quality Standards.**

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<u>Items*</u>	<u>State/Federal Classification</u>	<u>Required Changes**</u>
<u>701.4</u>	<u>Class SA/A</u>	
1. Floating solids; etc. 5. Toxics		Federal Criteria 1.1, 1.2 & 1.3 must apply.  Federal Criteria 1.4 & 2.1.2 must apply.  Appropriate Federal Criteria contained in 1,2.1, 2.2, 3, 4, 5, & 6 not cited above must also apply.
<u>701.4</u>	<u>Class SB/A</u>	
1. Floating solids; etc. 3. Effluents  5. Toxics		Federal Criteria 1.1, 1.2 & 1.3 must apply.  Should specifically include coliform criteria contained in Federal Criteria 2.1.1.  Federal Criteria 1.4 and 2.1.2 must apply.  Appropriate Federal Criteria contained in 1,2.1, 2.2, 3, 4, 5 and 6 not cited above must also apply.
<u>701.4</u>	<u>Class SC/B</u>	
1. Floating scldids; etc. 4. Toxics		Federal Criteria 1.1, 1.2 and 1.3 must apply.  Federal Criteria 1.4 and 2.1.2 must apply.  Appropriate Federal Criteria contained in 1,2.1, 2.3, 3, 4, 5 and 6 not cited above must also apply.
<u>701.4</u>	<u>Class SD/B</u>	
Use Description		The use description must be upgraded to conform with Federal Class B uses (Attachment I, Section 2) as a minimum.
1. Floating solids; etc. 3. D.O. 4. Toxics		Federal Criteria 1.1, 1.2 & 1.3 must apply.  Federal Criteria 2.1.1.1 must apply. Federal Criteria 1.4 and 2.1.2 must apply..  Appropriate Federal Criteria contained in 1,2.1, 2.3, 3, 4, 5 and 6 not cited above must also apply.

**Attachment IV—Required Changes in New York  
Water Quality Standards.**

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<u>Items*</u>	<u>State/Federal Classification</u>	<u>Required Changes**</u>
<u>702.1</u>	<u>Class A—special/A</u>	
1. Floating solids; etc.		Federal Criteria 1.1, 1.2 & 1.3 must apply.
2. Effluents		Should specifically include coliform criteria contained in Federal Criteria 2.2.1.
3. Odor Prod. Subs.		Federal Criteria 2.2.3 must apply.
5. pH		Federal Criteria 2.2.2 must apply, specifically: upper limit of pH range must be 8.3.
6. D.O.		Federal Criteria 2.1.1.1 must apply.
7. Toxics		Federal Criteria 1.4 and 2.1.2 must apply.
		Appropriate Federal Criteria contained in 1,2.1, 2.2, 3, 4, 5 and 6 not cited above must also apply.
<u>702.2, 702.8</u>	<u>Class AA—special/A</u>	
1. Floating solids; etc.		Federal Criteria 1.1, 1.2, 1.3 & 1.4 must apply.
		Appropriate Federal Criteria contained in 1,2.1, 2.2, 5 and 6 must also apply.
<u>Special classes - 702.3, 702.4 and 702.5</u>		
<u>702.3</u>	Lower Hudson River, Arthur Kill, Kill Van Kull, Harlem River, Raritan Bay and Lower East River drainage basins; New York Bay Area; Nassau County including Long Island Sound; and Suffolk County.	
<u>702.4</u>	Certain tidal waters within the Upper East River and the Long Island Sound drainage basins within Queens, Bronx and Westchester Counties.	
<u>702.5</u>	Jamaica Bay drainage basin within Kings and Queens Counties including a certain portion of Rockaway Inlet.	
The above waters are classified as I-I, I, or II.		

Attachment IV—Required Changes in New York  
Water Quality Standards.

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<u>Items*</u>	<u>State/Federal Classification</u>	<u>Required Changes**</u>
	<u>Class I-I/B</u>	
1. Floating solids; etc.		Federal Criteria 1.1, 1.2 & 1.3 must apply.
3. Effluents		Should specifically include coliform criteria contained in Federal Criteria 2.3.1.
4. D.O.		Federal Criteria 2.1.1.1 must apply.
5. Toxics		Federal Criteria 1.4 and 2.1.2 must apply.
	<u>Class I/B</u>	Appropriate Federal Criteria contained in 1, 2.1, 2.3, 3, 4, 5 and 6 not cited above must also apply.
	<u>Class II/B</u>	The criteria for class I/B must be identical to those for class I-I/B.
Use Description		The use description must be upgraded to conform with Federal Class B uses as a minimum. (Attachment I, Section 2).
		The criteria for class II/B must be identical to those for class I-I/B as a minimum.

Attachment IV—Required Changes in New York  
Water Quality Standards.

Attachment IV.A.

Required Changes in NY/DRBC Water Quality Standards  
As Contained in Basin Regulations - Water Quality Adopted  
By the DRBC, March 7, 1968.

Article 2-2 Interstate Streams - Nontidal (Federal Class A)

Section 2-2.3 Water Uses to be Protected

Since all nontidal waters in the Delaware Basin are designated suitable for recreation (Column 2 of Table II-I of the Regulations), which is defined by the statement, "Recreation" includes all water-contact sports", the waters shall be designated as Federal Class A waters.

Section 2-2.4 Stream Quality Objectives

Required Changes\*\*

- |                     |    |                                                                                                               |
|---------------------|----|---------------------------------------------------------------------------------------------------------------|
| A. Dissolved Oxygen | 1. | Federal Criteria 2.1.1.1 b must apply.                                                                        |
|                     | 2. | Federal Criteria 2.1.1.1 c must apply.                                                                        |
| B. Temperature      | 2. | Federal Criteria 2.1.1.2 must apply.<br>"Heat dissipation areas" shall not be exempted from thermal criteria. |
| C. pH               |    | Federal Criteria 2.2.2 must apply.                                                                            |
| I. Radioactivity    |    | Federal Criteria 2.1.2 must apply.                                                                            |
| J. Turbidity        |    | Federal Criteria 2.2.4 or 2.3.4<br>(whichever is more stringent) must apply.                                  |
|                     |    | Appropriate Federal Criteria contained in<br>1, 2.1, 2.2, 3, 4, 5 and 6 and 7 not cited<br>above must apply.  |

Attachment IV—Required Changes in New York  
Water Quality Standards.

Attachment IV.B.

**Special Requirements  
International Boundary Waters as Established by the  
International Joint Commission (IJC)**

Where IJC Water Quality Objectives apply and are more stringent than the minimum Federal Criteria contained herein, the IJC Objectives shall apply. The specific water quality criteria of concern follow:

Annex 1\*

Requirements

1. (a) Microbiology

Should not exceed a geometric mean of 1000 total coliforms (MPN) per 100 ml. nor 200 fecal coliforms (MPN) per 100 ml., in waters used for body contact recreation.

(b) Dissolved Oxygen

In the Connecting Channels and in the upper waters of the Lakes, should not be less than 6.0 mg/l at any time.

(c) Total Dissolved Solids

In Lake Erie, Lake Ontario, the International Section of the St. Lawrence River and the Niagara River total dissolved solids should not exceed 200 mg/l. In the remaining Boundary waters, total dissolved solids should not exceed present levels.

(d) Phenols

Substantially absent.

(e) pH

Should not be outside the range 6.7-8.5.

(f) Iron (Fe)

Should not exceed 0.3 mg/l.

\*Reference: "Great Lakes Waters Quality Agreement, with Annexes and Texts and Terms of Reference, Between the United States of America and Canada", April 15, 1972.



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68 Letter to Governor Rockefeller from G. M. *Harry*  
Hansler, dated January 17, 1973.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION II  
26 FEDERAL PLAZA  
NEW YORK, NEW YORK 10007

March 13, 1973

Honorable Nelson A. Rockefeller  
Governor of New York  
Albany, New York 12201

Dear Governor Rockefeller:

In accordance with Section 303(a)(2) of the Federal Water Pollution Control Act Amendments of 1972 (FWPCA), P.L. 92-500, the Environmental Protection Agency (EPA) has reviewed the New York State intrastate water quality standards contained in 6 NYCRR 600-941 for consistency with the Federal Water Pollution Control Act as in effect immediately prior to October 18, 1972. Since I was officially advised on November 13, 1972, that the New York State intrastate water quality standards are identical to the State's interstate standards, I am hereby notifying you that the same revisions required by EPA notification of January 17, 1973, pursuant to Section 303(a)(1) of FWPCA, must be applied to intrastate water quality standards as well. To that end, my letter of January 17, 1973, and its attachments are incorporated into this document by reference.

For your convenience in changing the use designations of various intrastate waters which are presently classified at levels below Federal Class B, as described in my previous letter, a complete list of New York Waters which require revisions has been prepared. This list, which has been extracted from 6NYCRR 800-941, makes no distinction between intrastate and interstate waters.

Because of the volume of material involved, this list, "Waters of the State of New York Requiring Upgrading to Federal Class B or the Equivalent State Use Classification," has been forwarded directly to Commissioner Henry L. Diamond with a copy of this letter.

The actions the State must take in order to fulfill the requirements of the FWPCA, as well as the EPA policies and the time limits for implementing these changes and the procedures for requesting exceptions are summarized in the enclosed, final version of "Guidelines for Developing or Revising Water Quality Standards."

68 Letter to Governor Rockefeller from G. M.  
Hansler, dated January 17, 1973.

In accordance with Section 303(a)(2) of the FWPCAA, you are hereby notified that your present intrastate water quality standards must be revised and legally adopted as specified above within 90 days. However, if you desire to make the needed revisions, but cannot accomplish the task within ninety days, please continue the process and seek final adoption as soon as possible. The reason for this is that the law allows the States at least 310 days to adopt necessary revisions before EPA must finally promulgate (90 days after notifying Governor or State agency; approximately 30 days for EPA to promptly propose if State has not adopted; and an additional 190 days for EPA to promulgate if State has not finally adopted).

It is hoped that the State of New York will continue to move expeditiously to revise its water quality standards as necessary, thereby obviating the necessity of Federal promulgation. My staff and I offer our continued cooperation and assistance in this endeavor.

Sincerely yours,

Gerald M. Hansler, P.E.  
Regional Administrator

Enclosure: a/s

cc: (with attachments):  
Mr. Henry L. Diamond, Commissioner  
New York State Department of  
Environmental Conservation  
cc: (Letter only):  
Eugene Seebald, Director  
Pure Waters  
New York State Department of  
Environmental Conservation.

71 Memorandum to G. M. Hansler from Charles N.

Durfor, dated April 13, 1973.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region II Office

SUBJECT: Water Programs Conferences in Albany on  
April 5 and 6

DATE: April 13, 1973

FROM: AW-WP

TO: Gerald M. Hansler, P.E.  
Regional Administrator

THRU: Rocco D. Ricci, P.E., Director  
Division of Air & Water Programs

The following is a series of summaries of conferences between New York State and Region II, EPA, attended by R. Ricci and C. Durfor and at times by H. Allen and R. Salkie. These summaries contain the conclusions reached and principal agency points of view if divergent. The underlined items indicate actions to be taken by EPA.

Water Quality Standards

New York State had requested EPA to meet to discuss revisions of inter- and intra-state water quality standards. New York State had given EPA, informally, a list of questions which outlined their principal concerns. In return EPA prepared a written response. Copies of these documents are attached. (Attachment 1 - NYS questions; Attachment 2 - EPA responses.) It was made clear to each other that these documents had no official standing and were working documents.

A principal concern of New York State was the EPA requests: a) to upgrade New York State Water Quality Classification D to be equivalent to Federal Class A (swimmable) or Class B (fishable) and b) to upgrade the designations of streams now designated New York State Class D. New York State indicated that these streams had been classified Class D earlier (in 1950 and 1960) because these waters were unsuitable for gamefish because the streams were intermittent and had no spawning potential and had siltation problems.

The Sansom policy document on water quality standards revisions of intermittent streams was discussed. A copy of this memorandum was furnished to New York State. It was agreed those streams which came within these guidelines were likely candidates for exemption from the Federal Class A or Class B category. It could not be resolved whether these exemptions, which were being asked for on the basis of the promulgated National Guidelines, should be included in public hearings as required for all other exemptions. [M. Scolnick had indicated previously that public hearings had to be held on all water quality standards revisions and all exemptions to revision of water quality classifications.]

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Durfor, dated April 13, 1973.

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EPA will have to discuss this matter with M. Scolnick and get back to New York State.

Attachment 2 - responses by EPA to New York State's questions on water quality standards was distributed. Discussions did not ensue on each question, however, the following concerns were highlighted:

Thermal Standards -

A New York State concern was that EPA was requiring more of New York State than was being required of adjacent and contiguous states. EPA responded by furnishing - in attachment 2 - a table of comparisons of existing thermal standards and a table summarizing what has been requested. These tables compared existing criteria for New York, New Jersey, Connecticut, Massachusetts, Vermont and Pennsylvania and summarized requested revisions.

EPA further responded that the proposed thermal criteria had been worked out after years of negotiations and meetings with the National Thermal Task Force, (Barber, Rainwater, Tarzwell and Nalesnick). EPA further indicated that G. Hansler and H. Diamond had agreed to the acceptability of these criteria. At this point, New York State expressed doubts that New York State had agreed to these criteria. EPA agreed to discuss this further with the RA and get back to the State.

New York State was further concerned about the applicability of the proposed standards; they pointed out that New York State regulations include a "grandfather clause" for existing thermal discharges. EPA responded that we would have to check further to determine whether this could be allowed and EPA will get back to New York State.

Concern was expressed about New York State revision of IJC waters. New York State wanted to be sure that all IJC states would be upgrading to the same standards. EPA responded that the proposed revisions for IJC waters had been coordinated with the Water Quality Standard Coordinators. However, EPA would be glad to take the lead in organizing a meeting of the IJC states to discuss these standards. (Perhaps Ken Walker will be the prime mover in the organization of the meeting?)

A large concern was the matter of upgrading the dissolved oxygen standards. The position of the State was as follows: 1) the present standards are adequate, 2) New York State standards apply at all times, not just for MA 7/10, 3) hundreds of plants are designed on these standards and it would be a horrendous task to redesign these hundreds of plants and 4) the design calculations are extremely conservative. EPA responded as follows: 1) we understand their point of view, 2) we have national guidelines (the Green Book) and a mandate to upgrade these standards, 3) unless it can be demonstrated quantitatively that

71 Memorandum to G. M. Hansler from Charles N.  
Durfor, dated April 13, 1973.

the lower dissolved oxygen concentration of the present standards to be maintained "at all times" is equivalent to the recommended DO at MA 7/10, EPA would insist upon the Green Book value, 4) the public groups should support the higher value and 5) the standards should be consistent interstate-wide. (It would be almost impossible to have the adjacent states adopt New York State design criteria.)

After much debate, New York State agreed to raise their criteria, however, they plan to lower their design criteria so that the treatment plants already designed will not have to be redesigned. The following table summarizes their present course of action in planning and what they plan to do with increased DO standards:

Water Quality Standards	Flow	DO	Design Life	Reserve Capacity	Assimilation Capacity Factors
NYS Existing	At all times (MA 7/50)	4.0ppm	25 years	30%	very conservative
Fed. (Proposed)	MA 7/10	5.0ppm	<25 years	<30% (10%)?	less conservative

In as much as the presently designed treatment plants are principally concerned about meeting dissolved oxygen standards, there was no other major concern about using MA 7/10 for other criteria.

New York State has a regulation indicating that where natural conditions cause instream water quality to be in excess of water quality standards then the natural water quality conditions prevail over the water quality standards. This would concern pH, phosphorus, turbidity and maybe others. EPA agreed that this was agreeable and should stand.

The question of analyses of samples was discussed (question 4 of attachments 1 and 2). After discussion, EPA indicated that laboratory methods other than Standard Methods, ASTM, and EPA Manual could be used if the method was agreed upon in advance by New York State and EPA.

The matter of hearings was discussed. New York State was interested in knowing how other states were doing. EPA promised to send them information as it became available. New York State plans to hold about 4-6 hearings probably during early summer.

EPA requested and New York State promised to send, prior to April 17, a letter to G. Hansler indicating their plans for revisions, their plans for hearings and a proposed schedule for completion of Water Quality Standards Revision.

71 Memorandum to G. M. Hansler from Charles N. Durfor, dated April 13, 1973.

EPA promised to send a clarifying letter, amending our letter of January 17, 1973, on any revision of our recommendations, such as phosphorus and dissolved gases.

EPA promised to keep New York State informed of the water quality standard revisions of states adjacent to New York State to assure New York State that all requested revisions are compatible.

Great Lakes Enforcement Study

This study was briefly discussed. R. Mt. Pleasant furnished a copy of his memorandum on this subject (attachment 3). In return, C. Durfor read his draft memorandum on this subject. After discussion, a course of action was jointly formulated which is now contained in the final paragraph of R. Ricci's memorandum (see attachment 5).

Water Quality Station Analysis

It was briefly discussed that a meeting will be held on April 16 with EPA and New York State personnel to plan the summer sampling program taking into accord the following aids:

- 1) Corps of Engineers assistance in Buffalo River.
- 2) Ken Walker's help in field sampling.
- 3) Great Lakes Enforcement Study monies for these areas.
- 4) Dick Dewling's help in field sampling.
- 5) Washington assistance in financing regional basin planning studies.
- 6) New York State resources.

At this meeting will be representatives from Rochester Field Office, Surveillance and Analysis Division, Air and Water Division, as well as the State personnel. It will be held in Albany.

Onondaga EIS

The following day a meeting was with a list of people to discuss the preparation of the Onondaga EIS (see attachment 6).

After a few preliminary remarks the outline was discussed and work assignments were made. Dates for submission of data and information were established and have been indicated on the attached outline (attachment 7).

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Durfor, dated April 13, 1973.

It was repeated time and time again that an EPA schedule can only be met if the information is adequate, the coverage is adequate, no massive rewrite jobs are required, and the documents submitted on time. The intentions are to have the information submitted so that it is concise, adequate, well written and impartial. Based upon these constraints, the planned flow of information, and the fact that Onondaga County will submit text, tables and illustrations that will be publishable, the following deadlines were established:

8-1-73 - Printing of EIS complete - to CEQ

8-15-73 - Hearing

9-1-73 - Close review period

10-1-73 - Revised document submitted to CEQ

11-1-73 - Completion of NEPA procedures

Again it was stressed that these are the best dates that can be met. Any delay, public eruption, extensive rewrites would extend these dates.

It was agreed to send B. Metzger and R. Hemmett to Syracuse next Monday, April 9, to start Onondaga County on the task of furnishing acceptable documents.

It was agreed to send the County and State six copies each of the MCSA EIS.

It was agreed to send New York State (carbon copy to the County) a letter indicating our concern about the outfall location of the Metro Plant.

The points of contacts for keeping this EIS on schedule and tracking the preparation is:

John Karanak - Onondaga County  
Russ Mt. Pleasant - New York State  
Charles Durfor - EPA

Water Quality Segments Priority

A discussion was held with Russ Mt. Pleasant and Sal Pagano. A copy of the WQ-EFF map was loaned to them and a list of "major" and "significant" discharges was given. After discussing the problems Russ agreed to furnish the priority of water quality segments on next Wednesday - April 11, 1973. His initial reaction to go for Mohawk River, Hudson River, possibly the Genesee River, but he will confirm this. New York State does want to do

**71 Memorandum to G. M. Hansler from Charles N.  
Durfor, dated April 13, 1973.**

the waste load allocations. However, Sal is interested in getting after  
recalcitrant industrial polluters whether they are located on WQ or EFF  
segments.

**Charles N. Durfor  
Chief  
Water Programs Branch**

**Attachments**

74 Letter to Governor Rockefeller from G. M. Hansler  
dated May 4, 1973.

MAY 4 1973

Honorable Nelson D. Rockefeller  
Governor of the State of New York  
Albany, New York 12201

Dear Governor Rockefeller:

In accordance with Section 303(a) of the Federal Water Pollution Control Act Amendments of 1972, the Environmental Protection Agency reviewed the interstate water quality standards for the State of New York. By letter of January 17, 1973, I notified New York State that the present Federally-approved water quality standards must be revised and legally adopted within 90 days of January 17, 1973. As you know, until revised standards have been adopted by New York State and approved by EPA, or have been promulgated by EPA, the current standards are the legal basis for all water pollution control actions.

My letter stated: "It is EPA's policy, to require all waters to receive a use classification which will protect these waters for:

- (A) recreational use in the water (whole body contact) and the preservation and propagation of desirable (indigenous) species of aquatic biota; or
- (B) recreational use on the water (fishing, boating, etc.) and the preservation and propagation of desirable (indigenous) species of aquatic biota."

The Federal Class B standard is mandated by EPA under the Federal Water Pollution Control Act in effect prior to the new law. The Federal Class A standard has been established by Congress under the new law as the national goal to be achieved by July 1, 1983.

My letter also stated: "Some waters, because of naturally poor quality, man-made pollution or technological limitations may qualify for an exected classification." I further indicated: "Requests for exceptions to use classifications or criteria should be submitted to me with supporting documentation." Should EPA concur in these requests, exceptions will be granted for a specific water body or for a specific criterion.

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dated May 4, 1973.

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To date, I have received no communication indicating when the New York State Water Quality Standards will be revised and legally adopted. Neither have I received any written communication requesting any exception for any water use classifications, water quality criteria or specific water bodies.

The Act provides that if a State fails to adopt the revisions to water quality standards, either inter or intrastate, specified by EPA within 90 days after notification, EPA must promptly prepare and publish proposed regulations in the Federal Register.

In accordance with this mandate, and taking into account the dimensions of the task and the resources available for this purpose, Region II is embarking on this project. We hope to complete this task by June 15, 1973. As indicated in my January 17 letter, the proposed revisions are based upon the "Water Quality Criteria Report of the National Technical Advisory Committee to the Secretary of the Interior - April 1968" (the Green Book), and other information provided from time to time by EPA.

We want the proposed regulations to reflect the water use and water quality criteria exceptions requested by New York State and concurred in by EPA. We cannot accomplish this unless your water pollution control agency furnishes me a complete list of: a) water use classifications where an exception is desired from being classified equivalent to Federal Class B, b) those criteria which should be considered as exceptions to the Green Book recommendations, and c) those streams which should be granted an exception from being classified Federal Class B. Supporting data for these exceptions, including the transcript of any public hearings previously held in connection with water use classifications or criteria, if still relevant, should be supplied.

If New York State is planning to revise the water quality standards as specified in my letter of January 17, the State should submit a specific schedule which it will follow in revising the standards. The schedule should include: the date of public notice as to the proposed revisions, which date should be not later than June 1, 1973, the locations and dates of public hearings to be held throughout the State, the expected date of adoption of the standards by the State and the expected date for submission of the legally adopted standards to EPA for approval.

The information on the exceptions to use or criteria for specific streams and the schedule for adoption of revised standards must be submitted to us by May 18, 1973. Unless the information concerning the exceptions to water use designations and water quality criteria for specific streams is received by May 18, EPA will be unable to evaluate and incorporate these exceptions in its promulgation of proposed regulations.

74 Letter to Governor Rockefeller from G. M. Hansler  
dated May 4, 1973.

-3-

Although this letter relates to interstate water quality standards, inasmuch as New York has neither adopted nor requested revisions by April 18, as required, it is suggested that intrastate standards also be included in your standards revisions/exceptions process. This is suggested because the intrastate standards revisions process by the State should be completed by June 11, 1973; and to our knowledge your administrative procedures to accomplish this have not been initiated. We intend to handle both interstate and intrastate standards simultaneously in our proposed promulgation process.

It is hoped that New York State will move expeditiously to revise its water quality standards and to claim exceptions, where desired, to the B use designations or criteria when supported by written justifications.

Sincerely yours,

Gerald M. Hansler, P.E.  
Regional Administrator

cc: Henry L. Diamond, Commissioner  
New York State Department of  
Environmental Conservation

Eugene Seebald, Director  
Pure Waters  
New York State Department of  
Environmental Conservation

R. B. Ricci  
C. N. Durfor

CNDurfor:dmc 5/4/73

78 Letter to G. M. Hansler from T. N. Hurd, dated  
May 24, 1973.

*D. Hansler —  
R. Bucci —*



STATE OF NEW YORK  
EXECUTIVE CHAMBER  
ALBANY 12224

T. N. HURD  
SECRETARY TO THE GOVERNOR

May 24, 1973

Dear Mr. Hansler:

Governor Rockefeller has asked me to reply to your letter concerning water quality standards.

Commissioner Diamond advises that immediately upon receipt of your January 17, 1973 communication, the Department of Environmental Conservation began negotiations and maintained a continuing dialogue with you and your staff as to how best to accomplish our mutual aims and goals. Your letter does not recognize these efforts nor acknowledge correspondence in this regard.

The Department has also informed me that continuing negotiations are now beginning to yield positive results. I hope you will do whatever you can to encourage resolution of any remaining problems.

Sincerely,

*T.N. Hurd*

Mr. Gerald M. Hansler, P.E.  
Regional Administrator  
Region II  
U. S. Environmental Protection Agency  
26 Federal Plaza  
New York, New York 10007

79 Letter to G. M. Hansler from J. L. Biggane, dated  
June 8, 1973.

New York State Department of Environmental Conservation  
50 Wolf Road, Albany, New York 12201

*Wallace*  
6-11-73 RCL



Henry L. Diamond,  
Commissioner

June 8, 1973

Mr. Gerald M. Hansler  
Regional Administrator  
Environmental Protection Agency  
Region II Office  
26 Federal Plaza  
New York, New York 10007

Dear Jerry:

New York State has initiated steps necessary to comply with revisions to its water quality standards as requested in your letters to Governor Rockefeller of January 17, 1973 and March 13, 1973. In planning ways to comply, we must consider the statutory provisions of the State Environmental Conservation Law (Section 73-0301) which requires public hearings upon due notice for any alteration or modification in the "Rules and Classifications and Standards of Quality and Purity for Waters of New York State" and for the assignment of these to any waters of the state.

The following responses are directed to the specific items in your letters, and indicate our commitment to achieving appropriate revisions to bring our standards in compliance with the 1972 FWQAA.

#### Inter/Intra-State Water Quality Standards Revisions

##### A. Definitions of Use Classifications

EPA Requested Revisions: Present federally approved New York State use classifications for Classes D, SD and ISC II were found to be now inconsistent with FWQAA and must be upgraded to at least the federal B level unless an exception is requested by New York State and granted by EPA in accordance with applicable procedures.

NYS Response: Streams of these classes were so classified after prerequisite studies and public hearings determined that they were unsuitable for fish propagation because of the intermittency of stream flow, lack of natural suitable habitat, and/or where natural and man-made conditions, which cannot be realistically controlled, preclude attainment of more stringent water quality criteria. Therefore, Classes D, SD and ISC II and their respective standards will be retained as is and applied to waters for which an exception to the federal Class B are herein requested. (Attachment I).

79 Letter to G. M. Hansler from J. L. Biggane, dated  
June 8, 1973.

B. Applicable Water Quality Criteria

EPA Requested Revisions: - Water quality criteria for each New York State use classification must be revised to comply with the minimum acceptable water quality criteria as abstracted from the "Green Book".

NYS use: Classes AA, A, B, C, SA, SB, SC and ISC I-I will be retained; applicable water quality criteria will be revised as indicated below: (See Attachment II).

- ✓(1) modification of pH ranges.
- ✓(2) addition of coliform standards.
- ✓(3) addition of color and turbidity standards.
- ✓(4) addition of dissolved solids standards for AA and A classes (Drinking Water).
- ✓(5) no addition of phosphorous criteria for lakes and streams at this time.
- ✓(6) no modification of DO standards for fresh waters, but inclusion of criteria and objectives which reflect the "Green Book" and International Agreement.
- ✓(7) modification of taste and odor producing substances, suspended, colloidal, or settleable solids, and oil and floating substances.
- ✓(8) New York's existing thermal discharge standard has been retained. Reference is also directed to Part 704 (attached) which includes the proposal developed by the National Thermal Task Force. In general, all new thermal discharges or modifications to existing thermal discharges will meet the standards set forth in various classes under Part 701.3, 701.4, 701.5 and 702, if designed to meet the criteria contained in Part 704.
- ✓(9) clarification of mixing zones, zones of passage and analytical testing.
- ✓ It is understood and appropriately stated in Part 701.2(c) "that these standards apply at all times except during periods when flows are less than the minimum average 7-consecutive day low flow which occurs once in ten years (MA7CD/10yr.). Contingency plans will govern during critical periods when stream flows are less than the MA7CD/10yr."

79 Letter to G. M. Hansler from J. L. Biggane, dated  
June 8, 1973.

C. Use Classifications of Specific Waterways

EPA Requested Revisions: All waters not classified at levels equivalent to federal Classes A or B must be upgraded to a water use classification at least equivalent to federal Class B or higher where interstate or international agreements exist. Waters previously classified by state use classification at levels comparable to federal use Class B are not required to be upgraded to federal Class A.

NYS Response: After public hearings on the revisions of NYS classes and standards have been concluded and justifiable changes adopted, an additional series of public hearings will be held to assign the revisions to specific waterways. It is anticipated that appropriate proceedings for upgrading will be incorporated into these latter hearings. Attachment III lists the water segments which NYS hereby requests for exemption from the requirements of federal Class B.

Schedule of Events for New York State Water Quality Standards Revisions

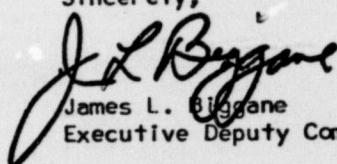
The following timetable represents New York's schedule of activities leading to the achievement of revisions to New York State standards as required by EPA under PL 92-500:

Public Notice: June 30, 1973 - Public Hearings: July 31, 1973

Promulgation by September 15, 1973.)

We expect that EPA will supply supporting testimony for these changes at the hearings.

Sincerely,



James L. Biggane  
Executive Deputy Commissioner

Attachments

## 80 Recommended Thermal Criteria—July 1973.

## PART 704

## CRITERIA GOVERNING THERMAL DISCHARGES (HEATED LIQUIDS)

(STATUTORY AUTHORITY: ENVIRONMENTAL CONSERVATION LAW,  
ART. 15:0317)

## Section

- 704.1 General Statement  
 704.2 Criteria governing thermal discharges  
 704.3 Additional limitations or modifications

EPA RECOMMENDATION

## Section 704.1 GENERAL STATEMENT †† Section 704.1 GENERAL STATEMENT

All thermal discharges (heated liquids) including new or existing discharges or modifications to existing discharges, shall meet the standards set forth for the various classes under Part 701.3, 701.4, 702 and 704.2.

NEW YORK STATE RECOMMENDATION

(a) Criteria for design of new thermal discharges or modifications to existing thermal discharges are set forth in sections 704.2 and 704.3 of this Part.

(b) All thermal discharges (heated liquids), including new or existing discharges or modifications to existing discharges, shall meet the standards set forth for the various classes under Part 701.3, 701.4, and Part 702.

## Section 704.2 CRITERIA GOVERNING THERMAL DISCHARGES.

## †† Section 704.2 CRITERIA GOVERNING THERMAL DISCHARGES.

The criteria for new or existing thermal discharges or modifications to existing thermal discharges to the waters of the state shall be as follows:

The criteria for new thermal discharges or modifications to existing thermal discharges to the waters of the state shall be as follows:

## (a) NON-TROUT WATERS

(1) The water temperature at the surface of a stream shall not be raised by a thermal discharge to more than 90°F at any point. (2) At least 50 percent of the cross sectional area and/or volume of the flow of the stream including at least a minimum

**80 Recommended Thermal Criteria—July 1973.**

of 1/3 of the surface as measured from shore to shore shall not be raised more than 5 Fahrenheit degrees at any point over the temperature that existed before the addition of heat of artificial origin or to a maximum temperature of 86°F, whichever is less.\* (3) The thermal discharge must meet the additional requirement that no more than a distance of 1000 feet on the surface in any direction shall be raised more than 5 Fahrenheit degrees over the temperature that existed before the addition of heat of artificial origin or to a maximum temperature of 86°F, whichever is less. (4) For the protection of the aquatic biota from severe temperature changes, routine shutdown of a facility responsible for a thermal discharge should not be scheduled during the period from December through March.

**(b) TROUT WATERS**

No thermal discharge with a temperature over 70°F will be permitted at any time to streams classified for trout. From June through September, no thermal discharges will be permitted that will raise the temperature of the stream more than 2 Fahrenheit degrees over that which existed before the addition of heat of artificial origin. From October through May, no thermal discharges will be permitted that will raise the temperature of the stream more than 5 Fahrenheit degrees over that which existed before the addition of heat of artificial origin or to a maximum temperature of 50°F, whichever is less.

**(c) LAKES AND RESERVOIRS**

(1) The water temperature at the surface of a lake shall not be raised more than 3 Fahrenheit degrees over the temperature that existed before the addition of heat of artificial origin; provided, however, this temperature may be exceeded within a radius of 300 feet or equivalent area from the point of discharge. (2) In lakes subject to stratification, the thermal discharges shall be confined to the epilimnion.

**(d) COASTAL WATERS** (1) The water temperature at the surface of coastal waters from October through June and from July through September shall not be raised more than 4 Fahrenheit degrees and

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\*It is recognized that because of widely varying conditions in streams and estuaries, the Department of Environmental Conservation will establish, where necessary to meet the standards for thermal discharges, a lower maximum surface water temperature and a greater zone of passage under the procedures set forth in "Additional limitation and modifications" section 704.3 infra.

1.5 Fahrenheit degrees respectively, over the temperature that existed before the addition of heat of artificial origin; provided however, this temperature may be exceeded within a radius of 300 feet or equivalent area from the point of discharge. (2) In coastal waters subject to stratification, thermal discharges shall be confined to the epilimnion.

(e) ESTUARIES

(1) The water temperature at the surface of an estuary shall not be raised to more than 90°F at any point. (2) During the periods from (A) October through June and (B) July through September, at least 50 percent of the cross-sectional area and/or volume of the flow of the estuary including a minimum of at least 1/3 of the surface as measured from water edge to water edge at any stage of tide, shall not be raised more than 4 Fahrenheit degrees for period (A) and 1.5 Fahrenheit degrees for period (B) over the temperature that existed before the addition of heat of artificial origin or a maximum temperature of 83°F, whichever is less.\* (3) During the periods from (A) October through June and (B) July through September, the thermal discharge must meet the additional requirement that no more than a distance of 1000 feet on the surface in any direction shall be raised more than 4 Fahrenheit degrees for period (A) and 1.5 Fahrenheit degrees for period (B) over the temperature that existed before the addition of heat of artificial origin or a maximum temperature of 83°F, whichever is less. (4) Because of the studies that have been made on the estuarial portion of the Hudson River, the need for limiting the temperature rise here during July through September to 1.5 Fahrenheit degrees is waived and the conditions specified for October through June will be permitted year-round.

(f) ENCLOSED BAYS

No temperature rise except that which occurs naturally will be permitted in enclosed bays.

\*See Note under (a) Non-Trout Waters

## 80 Recommended Thermal Criteria—July 1973.

NEW YORK STATE RECOMMENDATION RELATIVE TO  
ADDITIONAL LIMITATIONS OR MODIFICATIONS

The following, "Section 704.3, Additional limitations or modifications," is submitted as a recommendation by New York State for inclusion in Part 704. This section has been included for the purpose of the hearing so that a decision can be made relative to establishing this section as part of the criteria for thermal discharges.

## †† Section 704.3 ADDITIONAL LIMITATIONS OR MODIFICATIONS

(a) The Commissioner may impose limitations and/or conditions in addition to the criteria set forth in section 704.2 where he determines, in the exercise of his discretion, that such additional limitations and/or conditions are necessary to maintain the quality of the receiving waters for the best usage classification and standards assigned to them.

(b) The Commissioner may authorize a conditional modification of the criteria set forth in section 704.2 upon application. Upon receipt of such application the Commissioner shall confer with the U.S. Environmental Protection Agency and shall transmit to that agency information to enable the Administrator to fulfill his responsibilities under Federal law. The applicant shall have the burden of establishing to the satisfaction of the Commissioner that one or more of the criteria are unnecessarily restrictive as to a particular project in that a modification of such criterion, or criteria, as the case may be, would not impair the quality of the receiving waters so as to adversely affect them for the best usage classifications and standards assigned to them. The Commissioner may, when he determines it to be in the public interest, hold a public hearing upon the application.

(c) Any such modification shall be conditioned upon post-operational experience. Plans for additional treatment of, or change in, the thermal discharge shall be developed and submitted as part of the application to the Commissioner which shall be implemented upon order of the Commissioner in the event that post-operational experience shows a trend toward impairment of the quality of the receiving waters for the assigned best usage classifications and standards.

81 Letter to Commissioner Diamond from G. M. Hansler, dated June 29, 1973.

JUN 29 1973

Henry L. Diamond, Commissioner  
New York State Department of  
Environmental Conservation  
50 Wolf Road  
Albany, New York 12201

Dear Commissioner Diamond:

This is to acknowledge receipt of New York State's response to my letters of January 17 and May 4, 1973 concerning water quality standards revisions.

Mr. James L. Biggane, Executive Deputy Commissioner of the New York State Department of Environmental Conservation, submitted on June 8, 1973 the State's proposals to revise certain water quality standards to meet the Federal "B" use classification and attendant water quality criteria. He also requested an exception from the equivalent Federal "B" classification for certain stream segments, as provided for in the Federal Water Pollution Control Act Amendments of 1972. We will evaluate your proposed revisions and requested exceptions, and we will notify you as to our specific actions taken thereon.

As required by the new Act, we must prepare and publish proposed regulations setting forth the revised water quality standards in the Federal Register. However, we will not commence final promulgation action unless it is evident that the State process for adopting revised standards will not be completed within 190 days from the date of our proposed revisions or unless the State opts not to adopt all revisions finally suggested by EPA as proposed in the Federal Register.

New York State's schedule for standards revisions, as submitted in Mr. Biggane's letter, appears reasonable and we urge all efforts to meet that schedule.

As to specifics in your letter of June 8, 1973 and our reaction to it, the following is our position:

1. If your request for exceptions for the 18 segments of Attachment III (copy attached) can be granted based

81 Letter to Commissioner Diamond from G. M. Hansler, dated June 29, 1973.

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upon the information you will submit (by July 11, 1973), then we will not propose an EPA "B" level classification in the Federal Register.

2. EPA will propose that all NYS Class D, SD and ISC-II classified water bodies be upgraded to the equivalent EPA "B" use classification level.

We will not promulgate final water quality standards (use classification and attendant criteria for those water bodies) until New York State submits adequate justification for each identified stream to receive a lower classification, or proposes via public notice to adopt higher classification. For example, Unqua Lake (6NYCRR 835.6 Item No. 87) is known to be a year-round water body, but has been classified "intermittent" in Attachment I.

In any event, EPA must promulgate standards within 190 days from the date of our proposal, if the State doesn't adopt revised standards to the EPA "B" level or if the State has not determined the necessity for a lower classification, submitted such information to EPA for evaluation, and requested exceptions approved by EPA.

3. We accept your proposed upgraded standards revisions identified in Items B-1, 2 and 3 of your letter of June 8. We must also propose these standards in our Federal Register publication, but we will not promulgate unless you fail to adopt these revised standards within your scheduled time frame of September 15, 1973.
4. As to Item B-4 in your letter we accept the upgraded standard revision concerning dissolved solids criteria for Classes AA and A. We will so propose in our Federal Register publication. We will also propose that your State use classifications B and C be upgraded regarding the dissolved solids criteria as follows: "For waters classified NYS Class B and C, dissolved solids concentration shall not be increased by more than one-third of the concentration that is characteristic of the natural condition of the subject water."

81 Letter to Commissioner Diamond from G. M. Hansler, dated June 29, 1973.

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We will propose for the Class A--special waters in Lake Erie, Lake Ontario, the International Section of the St. Lawrence River and the Niagara River the total dissolved solids shall not exceed 200 mg/l. These revisions are in accordance with the International Agreement (IJC).

Further, we hope that you will propose such revised standards for all B, C and A--special streams. This does not obviate your right to request exceptions for specific water bodies based upon unusual circumstances.

5. You have not opted to include a specific phosphorus concentration as a revised criteria. We intend to publish a proposed criteria as follows: "For waters classified AA, A, B, C and A--special, phosphorus as total P shall not exceed 50 ug/l in any stream at the point where it enters any reservoir or lake, nor exceed 50 ug/l in any reservoir or lake." As to whether or not this would be a realistic or enforceable standard, if adopted by New York State or EPA, will be fully aired at the public hearing in the standards revision process.
6. Your Item 8-6 indicates that you will retain your absolute minimum D.O. standards of 4.0 mg/l and 5.0 mg/l, but will include in your revised standards "Green Book" and International Agreement (IJC) criteria numbers for D.O. The IJC minimum level for dissolved oxygen for A--special waters is 6.0 mg/l. We will also propose IJC and "Green Book" values for your specific use classifications. Whichever standard (state 4.0 mg/l or 5.0 mg/l at anytime or EPA average daily) is the more critical for any given stream, that more critical standard will be the enforceable one--or the one upon which permits will be based.
7. Your proposed revisions for taste and odor producing substances, suspended, colloidal, settleable solids, oil and floating substances are acceptable and we will also so propose.
8. Your "thermal" standard intentions (Item 8-8) speak of thermal discharges related to design criteria for new and modified facilities. Item 8-8 and Part 704 do not

81 Letter to Commissioner Diamond from G. M.  
Hansler, dated June 29, 1973.

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discuss existing facilities or non-contravention of quantifiable water quality standards. Though much of your design criteria numbers related to specific stream uses, such as trout waters, non-trout waters, etc., were found acceptable by the Federal Thermal Task Force, they have not been embodied as enforceable water quality standards in your Parts 701.3, 701.4, 701.5 and 702. Therefore, EPA will propose enforceable and finite thermal criteria as part of New York State revised water quality standards.

9. Your Item 8-9 is acceptable as submitted and we will so propose in the Federal Register.

Our regional draft Federal Register proposal will be completed and transmitted to you by July 5 and will include both your acceptable, proposed revisions and further revisions we deem necessary. It is hoped that you will see fit to present the revisions proposed in the Federal Register at the public hearing(s), and then adopt them based upon the public records.

During the time that existing water quality standards are in the process of official revision by the State or EPA, for purposes of permit issuance under §402(a) of the Act, we will implement all provisions of the Act on the basis of those existing State standards and criteria equivalent to Federal "B" classification, Federally approved exceptions to the "B" classification, or those upgraded standards which are in the process of being officially adopted by either the State or EPA.

Your personal interest in this environmental matter is very much appreciated.

Sincerely yours,

Gerald M. Hansler, P.E.  
Regional Administrator

Attachment

cc: Eugene Seebald, Director  
Pure Waters  
New York State Department of  
Environmental Conservation

R. D. Ricci  
C. N. Durfor  
H. L. Allen ✓

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122 Letter to Commissioner Biggane from G. M.  
Hansler, dated May 23, 1974.

MAY 23 1974

Commissioner James L. Biggane  
New York State Department of  
Environmental Conservation  
50 Wolf Road  
Albany, New York 12201

Dear Commissioner Biggane:

I have reviewed the draft of New York's proposed Part 704 (Criteria Governing Thermal Discharges) and the proposed amendments to Parts 701 and 702 of the water quality standards pertaining to thermal discharges. I find the latter proposed amendments to be consistent with our previous agreement.

There still remains a question as to the approvability of Part 704. Section 303(g) of the Federal Water Pollution Control Act (the Act) requires: "Water quality standards relating to heat shall be consistent with Section 316 of this Act." Section 316(a) of the Act states: "...whenever the owner or operator of any such source, after opportunity for public hearing, can demonstrate to the satisfaction of the Administrator (or, if appropriate, the State) that any effluent limitation...will require effluent limitations more stringent than necessary to assure the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in and on the body of water..., the Administrator (...State) may impose an effluent limitation..., that will assure the protection and propagation..." (emphasis supplied). Section 704.6(b) does not appear to conform to this requirement. Section 316 of the Act clearly imposes on the owner or operator of a thermal discharge the burden of proving to the Administrator or to the Commissioner that less stringent effluent limitations will assure protection and propagation etc. Section 704.6(b), as proposed, is inconsistent with Section 316 because it takes this burden of proof away from the discharger and places it on the Commissioner. Our preliminary review indicates that EPA cannot legally approve Part 704 until the burden of proof is shifted back to the discharger. The question of the legality and hence the approvability of Section 704.6(b) is currently under further review by our legal staff and I will inform you of the opinion in the near future.

122 Letter to Commissioner Biggane from G. M.  
Hansler, dated May 23, 1974.

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The question of the so-called "Grandfather Clause" (proposed Section 704.6(a)) has been discussed among our respective staffs several times in the past. There is still some question as to the propriety of permitting thermal discharges in existence prior to July 25, 1969 to continue without further review unless it is shown that a balanced indigenous population is not being protected and propagated.

EPA is aware that these thermal discharges were previously certified under the State permitting system as meeting water quality standards. However, it is EPA's responsibility to issue permits in conformity with applicable water quality standards. Under the provisions of the Act, EPA cannot issue a permit which allows the existing discharge to continue under historical effluent limitations unless there is a firm, factual justification that such limitations will continue to assure the protection and propagation of a balanced, indigenous population.

This is essentially a Section 316(a) type determination, with the burden of proof properly on the discharger. The evaluation may be done on a case-by-case basis, consistent with New York's needs and formerly stated intentions; but it must be done nevertheless.

Before the State can be certified to conduct the NPDES permit program, it must show that it has the proper legal authority to carry out the program. This would include authority to apply thermal standards consistent with Section 316. The provisions of Section 704.6(a) raise a question as to the consistency of the "Grandfather Clause" with Sections 303(g) and 316(a). A legal opinion of the "Grandfather Clause" question is presently being prepared by EPA's legal staff.

Until these legal questions have been resolved, I must withhold judgment as to the approvability of proposed Part 704. Meanwhile, I trust you will have your legal staff consider an alternative approach to Section 704.6 that is consistent with the requirements of Sections 303(g) and 316 of the Act.

I will be glad to discuss this matter with you further upon completion of the legal opinions of my staff.

Sincerely yours,

cc: C. N. Durfor  
C. Simon

Gerald M. Hansler, P.E.  
Regional Administrator

1078

125 Telex letter to M. Scolnick from J. Hanna, dated June 5, 1974.

R U S H

TO: Mayer Scolnick, Esq.

6/5/74

Section 704.6 would be changed by substituting for the paragraph (b) in the draft you have the following:

(b) Whenever the Commissioner has reason to believe that a thermal discharge, existing prior to the adoption of this Part, does not conform to subdivision (a) of section 704.1, he may impose appropriate criteria contained in this Part upon such thermal discharge, unless, after public hearing, the owner or operator of any such thermal discharge establishes to the satisfaction of the Commissioner that such thermal discharge conforms to subdivision (a) of section 704.1.

MIKE:

We want to present Part 704 to the State Environmental Board on June 25 which would require mailing the proposed material to the Board today. May I have by Telex your advise that you approve the proposed Part 704 with this change and anticipate Mr. Mansler's formal approval.

J. Hanna

1100

Enclosure 1—Draft Part 704, as amended June 5, 1974.  
(Portion only.)

April 10, 1974

Amended June 5, 1974

Part 704

Criteria Governing Thermal Discharges  
(Statutory Authority: 15-0313 and 17-0301)

Section

704.1 Water quality standard for thermal discharges

704.2 Criteria governing thermal discharges

704.3 Mixing zone criteria

704.4 Additional limitations or modifications

704.5 Intake structures

704.6 Applicability of criteria

Section 704.1 Water Quality Standard for thermal discharges.

(a) All thermal discharges to the waters of the State shall assure the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in and on the body of water.

(b) The criteria contained in this Part shall apply to all thermal discharges and shall be complied with, except as provided in this Part.

Enclosure 1—Draft Part 704, as amended June 5, 1974.  
(Portion only.)

704.6 Applicability of criteria

(a) In determining that a discharge existing prior to July 25, 1969 has violated the standard for thermal discharges, as provided in subdivision (a) of Section 704.1, the violation of any of the criteria contained in this Part shall not constitute evidence of a violation of such standard unless it is also shown that the violation of such criteria has contributed to the violation of the standard.

\*(b) Whenever the Commissioner has reason to believe that a thermal discharge, existing prior to the adoption of this Part, does not conform to subdivision (a) of section 704.1, he may impose appropriate criteria contained in this Part upon such thermal discharge, unless, after public hearing, the owner or operator of any such thermal discharge establishes to the satisfaction of the Commissioner that such thermal discharge conforms to subdivision (a) of section 704.1.

(c) The provisions of subdivision (a), and item (iii) of paragraph (1), item (iv) of paragraph (2), item (iii) of paragraph (3), item (ii) of paragraph (4), item (iv) of paragraph (5), and paragraph (6) of subdivision (b) of Section 704.2, and Section 704.3 shall apply only to thermal discharges for which any necessary State approvals or permits have been granted or issued subsequent to July 31, 1973 or to which the criteria contained in this Part were intended to apply pursuant to any certification issued by the Commissioner pursuant to section 401 (d) of the Federal Water Pollution Control Act Amendments of 1972.

\*Amendment, June 5, 1974

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127 Letter to J. Hanna from M. Scolnick, dated  
August 29, 1974.

**ENVIRONMENTAL PROTECTION AGENCY**

August 29, 1974

Mr. John Hanna Jr., Esquire,  
New York State Department of  
Environmental Conservation  
50 Wolf Road  
Albany, New York 12201

Dear John:

Following our recent telephone discussion with Jim Biggane on the New York State thermal standard and criteria, Jerry Hansler asked me to prepare a request for an opinion from the Office of the General Counsel of EPA in Washington on those points on which we held differing views.

I am enclosing a copy of my memorandum to the Deputy General Counsel. I will furnish you a copy of his opinion as soon as I receive it.

I hope that we will be getting a prompt ruling so that we can proceed to resolve the remaining problem holding up approval of the New York State Water Quality Standards.

Sincerely yours,

Meyer Scolnick, Director  
Enforcement and Regional Counsel Division

Enclosure

2ERC MScolnick:sae X1017 8/29/74

CONCURRENCES

STMP	ERC								1128
SUB	PHS								
DATE	8/29/74								

EPA FORM 1320-1

OFFICIAL FILE COPY

Enclosure 1—Memorandum to R. Zener from M.  
Scolnick, dated August 28, 1974.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

OBJECT: Whether New York State Water Quality Standards  
for Thermal Discharges are Approvable under Section  
303(a) of the Federal Water Pollution Control Act  
Amendments of 1972?  
FROM: Meyer Scolnick, Director  
Enforcement and Regional Counsel Division  
TO: Robert V. Zener (EG 330)  
Deputy General Counsel

DATE:

AUG 28 1974

*Meyer  
O'Hare  
Gluckstein*

#### Facts

On January 17, 1973, the Regional Administrator, Region II, notified the Governor of the State of New York that the State water quality standards were not consistent with the Federal Water Pollution Control Act Amendments of 1972 (the Act); he recommended, among other matters, that the State adopt revised thermal criteria (Incl. 1). Following State action to amend the standards, the Regional Administrator, on May 8, 1974, advised the Governor that he had approved the revised "Classifications and Standards Governing the Quality and Purity of Water of New York State" (6 NYCRR, Part 700, 701, and 702), and that this still left outstanding the issue of water quality standards for thermal discharges (6 NYCRR, Part 704) (Incl. 2).

On August 8, 1974, James L. Biggane, Commissioner, New York State Department of Environmental Conservation (DEC) submitted copies of Criteria Governing Thermal Discharges (6 NYCRR, Part 704), with changes required to be made by the State Environmental Board (Incl. 3). He requested the Regional Administrator's approval of Part 704, as amended (Incl. 4).

#### Questions Raised

The basic question presented by the Commissioner's request of August 8, is whether Part 704, Criteria Governing Thermal Discharges, can be approved as consistent with section 303(a) of the Act. The answer to this question is dependent upon determinations made concerning the following corollary matters:

- a. In considering the approvability of the State's water quality thermal standards under section 303(a) of the Act, may the Regional Administrator consider only the Water Quality Standard for thermal discharges in section 704.1(a), or must he consider the Standard together with the criteria governing thermal discharges in section 704.2 and the mixing zone criteria in section 704.3?

Enclosure 1—Memorandum to R. Zener from M.  
Scolnick, dated August 28, 1974.

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b. If the Regional Administrator must consider both the Standard (section 704.1(a)) and the criteria (section 704.2 and 704.3), are the State's thermal standards approvable when the "grandfather clauses" in section 704.6(a), with respect to pre-July 25, 1969 discharges, and section 704.6(b), with respect to pre-July 31, 1973 discharges, establish less stringent criteria but retain the general Standard for these classes of dischargers?

c. Is the triggering mechanism in section 704.6(c) (i.e. the Commissioner's "reason to believe") and the altered burden of proof involved therein inconsistent with sections 303(g) and 316(a) of the Act?

d. Should section 316(a) be considered in approving State thermal standards under section 303 of the Act?

Discussion

The New York water quality thermal "standards," as submitted or approval, are structured on the basis of a general descriptive standard in section 704.1(a), (essentially the same as that used in section 316(a) of the Act), and criteria in sections 704.2 and 704.3 which are both general (sections 704.2(a) and 704.3) and specific (sections 704.2(b)). However, the Standard in section 704.1(a) and the criteria in sections 704.2 and 704.3 are applied together, in the first instance, only to thermal discharges brought into existence after July 31, 1973; for these discharges, applications can be made under section 704.4 for modification of the criteria. In that event, a proceeding patterned after section 316(a) of the Act is provided; the discharger must request the modification and he also has the burden of proof in the subsequent proceedings.

For all discharges originating before that date, however, all or some of the criteria (as described in sections 704.6(a) and 704.6(b)) are applicable only if the Commissioner first "has reason to believe" that a thermal discharge is violating the Standard of section 704.1(a); in that case, he may impose appropriate criteria. The burden then shifts to the discharger to establish to the satisfaction of the Commissioner that the criteria are more stringent than needed to conform to section 704.1(a).

Enclosure 1—Memorandum to R. Zener from M. Scolnick, dated August 28, 1974.

The question presented is whether the procedure (in section 704.6) applicable to discharges prior to July 31, 1973 is consistent with section 316(a) and section 303(g) of the Act. Before the Commissioner's action is triggered, he must "have reason to believe" there is a violation of the Standard. Thus, the initial burden is on the person making the charge to show that the Standard is being violated. Presumably, he must do so by offering sufficient proof to persuade a reasonable man to impose the appropriate criteria.

Only after these preliminary steps have been taken is the discharger required to satisfy the Commissioner that he is not violating section 704.1(a) or that the criteria imposed are more stringent than necessary to conform to section 704.1(a). The effect of section 704.6, therefore, is to accord to pre-1973 dischargers more favorable treatment with respect to the application of the thermal standards and criteria than is available to post-1973 discharges. Is this disparity in treatment consistent with sections 303(g) and 316(a) of the Act?

A corollary question is presented with respect to the relationship, if any, between section 316(a) and section 303 of the Act. In considering whether to approve State water quality thermal standards under section 303, must the Regional Administrator determine whether they are consistent with section 316(a) of the Act? The language of section 303(g) seems to suggest that he must do so.

The approvability of the New York State thermal standards are a matter of urgency to the State agency, the regional office, the affected dischargers and the public. Early resolution of the matter is desirable. Your prompt consideration of these legal issues and your advice on their appropriate disposition will be greatly appreciated.

Enclosures

128 Letter to R. Murphy from H. Allen, dated September 10, 1974.

September 10, 1974

Mr. Roger Murphy  
Division of Pure Waters  
New York State Department of  
Environmental Conservation  
50 Wolf Road  
Albany, New York 12201

Dear Roger:

We presently have a request in the H.Q. concerning the acceptability of Part 704 as regards (1) the Standards vs. criteria approach and (2) the concepts of 704.6. We expect a response shortly. Meanwhile, I have been working-up revisions to your latest draft Part 704 based upon my own thoughts and those of Durfor, Scolnick and our thermal permits people, under the assumption that the opinion will be to give NY the go-ahead on 704.6 and on the use of criteria to support rather than replace the standard.

With these thoughts in mind, I have marked-up a copy of Part 704 with what I feel should be approvable. Most of these items I have already mentioned to you over the phone, such as:

704.2(a) - deleting waiver provision for general criteria  
704.2(a) 4 and 704.3(b) - deleting misleading statements.  
704.2(a) 5 - saying what you mean for coldwater discharges.  
704.2(b) 1,2,4,5 - possible implications of the word "immediately".  
704.3 - deleting waiver provision for mixing zone criteria.

One further change I have proposed is in 704.6(a) and (c). This change would permit violation of the general criteria or mixing zone criteria to be "reason to believe" for the Commissioner to open the case.

You will note pencilled-in questions at tops of several pages. These are generally the questions which led to each comment. I would appreciate it if you would talk these over with Quinn & Spagnoli. I would have contacted Quinn directly but I don't want to hit him cold with these questions. Perhaps we could all get together again to discuss this? Maybe with PSC? Although these comments do not represent anything official at present, I'm thinking this is the right track. Please get back to me; I would like to talk this over before I propose anything up through channels.

CONCURRENCES Yours truly,

2 ETP-WB							1132
H. Allen							
9-10-74				Harry Allen			

OFFICIAL FILE COPY

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129 Letter to H. Allen from R. Murphy, dated October  
1, 1974.



New York State Department of Environmental Conservation  
50 Wolf Road, Albany, New York 12201

James L. Biggan  
New York State  
Commissioner

October 1, 1974

Mr. Harry Allen  
Water Quality Standards Coordinator  
Environmental Protection Agency  
Region II  
26 Federal Plaza  
New York, New York 10007

Dear Harry:

Enclosed is a copy of new Part 704 along with the adoption  
order.

I believe the documents are self-explanatory and reflect the  
information we discussed by phone on September 30, 1974.

Sincerely,

A handwritten signature in cursive ink that reads "Roger D. Murphy".

Roger D. Murphy  
Assistant Sanitary Engineer  
Bureau of Standards and Compliance

Enclosure a/s  
cc: wo/Enclosure  
Mr. Stevens  
Mr. Brezner

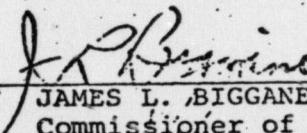
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Enclosure 1—Order by Commissioner Biggane, dated  
September 20, 1974.

STATE OF NEW YORK

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Pursuant to the provisions of Sections 15-0313 and 17-0301 of the Environmental Conservation Law, I, James L. Biggane, Commissioner of Environmental Conservation, do hereby REPEAL Part 704 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York and ADD thereto new Part 704, as shown on the attached original, effective thirty days after being filed with the Secretary of State, and certify that this is the original thereof, as adopted on this ~~20~~ day of September, 1974; provided, however, if the application, pursuant to Parts 800 to 941 inclusive of Title 6, of any provision of Part 704 shall be found to be invalid, the corresponding provision of Part 704 in effect immediately prior to such effective date shall be deemed not to have been repealed and shall remain in effect until such time as the provision, the application of which was found to be invalid, can lawfully be made applicable.

  
\_\_\_\_\_  
JAMES L. BIGGANE  
Commissioner of  
Environmental Conservation

Dated: Albany, New York  
September 20, 1974

Enclosure 2—Part 704, dated October 20, 1974.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

EFFECTIVE DATE

OCTOBER 20, 1974

PART 704

CRITERIA GOVERNING THERMAL DISCHARGES

(STATUTORY AUTHORITY: ENVIRONMENTAL CONSERVATION LAW,  
SECTIONS 15-0313 and 17-0301)

Section

- 704.1 Water quality standard for thermal discharges
- 704.2 Criteria governing thermal discharges
- 704.3 Mixing zone criteria
- 704.4 Additional limitations or modifications
- 704.5 Intake structures
- 704.6 Applicability of criteria

Section 704.1 WATER QUALITY STANDARD FOR THERMAL DISCHARGES.

- (a) All thermal discharges to the waters of the State shall assure the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in and on the body of water.
- (b) The criteria contained in this Part shall apply to all thermal discharges and shall be complied with, except as provided in this Part.

Enclosure 2—Part 704, dated October 20, 1974.

Section 704.2 CRITERIA GOVERNING THERMAL DISCHARGES.

(a) General criteria. The following criteria shall apply to all waters of the State receiving thermal discharges, except as provided in Section 704.6:

1. The natural seasonal cycle shall be retained.
2. Annual spring and fall temperature changes shall be gradual.
3. Large day-to-day temperature fluctuations due to heat of artificial origin shall be avoided.
4. Development or growth of nuisance organisms shall not occur in contravention of water quality standards.
5. Discharges which would lower receiving water temperature shall not cause a violation of water quality standards and Section 704.3.
6. For the protection of the aquatic biota from severe temperature changes, routine shut down of an entire thermal discharge at any site shall not be scheduled during the period from December through March.

(b) Special criteria. The following criteria shall apply to all waters of the State receiving thermal discharges, except as provided in Section 704.6:

1. Non-Trout Waters.

- (i) The water temperature at the surface of a stream shall not be raised to more than 90°F at any point.
- (ii) At least 50 percent of the cross sectional area and/or volume of flow of the stream including a minimum of one-third of the surface as measured from shore to shore shall not be raised to more than 5 Fahrenheit degrees over the temperature that existed before the addition of heat of artificial origin or to a maximum of 86°F whichever is less.

## Enclosure 2—Part 704, dated October 20, 1974.

(iii) At least 50 percent of the cross sectional area and/or volume of flow of the stream including a minimum of one-third of the surface as measured from shore to shore shall not be lowered more than 5 Fahrenheit degrees from the temperature that existed immediately prior to such lowering.

## 2. Trout Waters.

- (i) No discharge at a temperature over 70°F shall be permitted at any time to streams classified for trout.
- (ii) From June through September no discharge shall be permitted that will raise the temperature of the stream more than 2 Fahrenheit degrees over that which existed before the addition of heat of artificial origin.
- (iii) From October through May, no discharge shall be permitted that will raise the temperature of the stream more than 5 Fahrenheit degrees over that which existed before the addition of heat of artificial origin or to a maximum of 50°F whichever is less.
- (iv) From June through September no discharge shall be permitted that will lower the temperature of the stream more than 2 Fahrenheit degrees from that which existed immediately prior to such lowering.

## 3. Lakes.

- (i) The water temperature at the surface of a lake shall not be raised more than 3 Fahrenheit degrees over the temperature that existed before the addition of heat of artificial origin.

## Enclosure 2—Part 704, dated October 20, 1974.

- (ii) In lakes subject to stratification as defined in Part 652, thermal discharges that will raise the temperature of the receiving waters shall be confined to the epilimnion.
- (iii) In lakes subject to stratification as defined in Part 652, thermal discharges which will lower the temperature of the receiving waters shall be discharged to the hypolimnion, and shall meet the water quality standards contained in Parts 701 and 702 in all respects.

## 4. Coastal Waters.

- (i) The water temperature at the surface of coastal waters shall not be raised more than 4 Fahrenheit degrees from October through June nor more than 1.5 Fahrenheit degrees from July through September over that which existed before the addition of heat of artificial origin.
- (ii) The water temperature at the surface of coastal waters shall not be lowered more than 4 Fahrenheit degrees from October through June nor more than 1.5 Fahrenheit degrees from July through September from that which existed immediately prior to such lowering.

## 5. Estuaries or Portions of Estuaries.

- (i) The water temperature at the surface of an estuary shall not be raised to more than 90°F at any point.

## Enclosure 2—Part 704, dated October 20, 1974.

- (ii) At least 50 percent of the cross sectional area and/or volume of the flow of the estuary including a minimum of one-third of the surface as measured from water edge to water edge at any stage of tide, shall not be raised to more than 4 Fahrenheit degrees over the temperature that existed before the addition of heat of artificial origin or a maximum of 83°F whichever is less.
- (iii) From July through September, if the water temperature at the surface of an estuary before the addition of heat of artificial origin is more than 83°F an increase in temperature not to exceed 1.5 Fahrenheit degrees at any point of the estuarine passageway as delineated above, may be permitted.
- (iv) At least 50 percent of the cross sectional area and/or volume of the flow of the estuary including a minimum of one-third of the surface as measured from water edge to water edge at any stage of tide, shall not be lowered more than 4 Fahrenheit degrees from the temperature that existed immediately prior to such lowering.

## 6. Enclosed Bays.

No additional temperature change except that which occurs naturally shall be permitted in enclosed bays.

## Section 704.3 MIXING ZONE CRITERIA.

The following criteria shall apply to all waters of the State receiving thermal discharges, except as provided in Section 704.6.

- (a) The Department shall specify definable, numerical limits for all mixing zones (e.g., linear distances from the point of discharge, surface area involvement, or volume of receiving water entrained in the thermal plume).

## Enclosure 2—Part 704, dated October 20, 1974.

- (b) Conditions in the mixing zone shall not be lethal in contravention of water quality standards to aquatic biota which may enter the zone.
- (c) The location of mixing zones for thermal discharges shall not interfere with spawning areas, nursery areas and fish migration routes.

## Section 704.4 ADDITIONAL LIMITATIONS OR MODIFICATIONS.

- (a) An applicant may apply for a modification of the criteria set forth in Sections 704.2 and 704.3.
- (b) Upon receipt of such application, the Commissioner shall confer with the U.S. Environmental Protection Agency and shall transmit to that agency information to enable the Administrator to fulfill responsibilities under Federal Law.
- (c) The applicant shall have the burden of establishing to the satisfaction of the Commissioner that one or more of the criteria are unnecessarily restrictive as to a particular project in that a modification of such criterion, or criteria, as the case may be, would assure the protection and propagation of a balanced indigenous population of shellfish, fish, and wildlife in and on the body of water into which the discharge is to be made.
- (d) The applicant shall consult with the Department of Environmental Conservation to determine appropriate studies which shall be conducted by the applicant. Prior approval shall be obtained by the applicant for a program of studies that will determine the impact of any proposed modification. Such studies shall include, but shall not be limited to:
  1. A comparative analysis of environmental effects of the thermal discharge on the receiving waters when subject to the stated criteria of this Part, and when subject to the applicant's proposed modification.
  2. An analysis of the different discharge modes (e.g., surface or subsurface) and the advantages and disadvantages of each mode with regard to effects on aquatic life.

Enclosure 2—Part 704, dated October 20, 1974.

- (e) A public hearing shall be held upon the application.
- (f) The Commissioner may authorize a modification of the stated criteria, which modifications shall be conditioned upon post-operational experience. The Commissioner may require additional treatment of, or change in, a thermal discharge in the event that post-operational experience shows a trend toward impairment by the discharge of the quality of the receiving waters for the protection and propagation of a balanced indigenous population of shellfish, fish and wildlife in and on the body of water.

Section 704.5 INTAKE STRUCTURES.

The location, design, construction, and capacity of cooling water intake structures, in connection with point source thermal discharges, shall reflect the best technology available for minimizing adverse environmental impact.

Section 704.6 APPLICABILITY OF CRITERIA.

- (a) In determining that a discharge existing prior to July 25, 1969 has violated the standard for thermal discharges, as provided in subdivision (a) of Section 704.1, the violation of any of the criteria contained in this Part shall not constitute evidence of a violation of such standard unless it is also shown that the violation of such criteria has contributed to the violation of the standard.
- (b) The provisions of subdivision (a), and item (iii) of paragraph (1), item (iv) of paragraph (2), item (iii) of paragraph (3), item (ii) of paragraph (4), item (iv) of paragraph (5), and paragraph (6) of subdivision (b) of Section 704.2, and Section 704.3 shall apply only to thermal discharges which have been brought into existence subsequent to July 31, 1973 or to which the criteria contained in this Part were intended to apply pursuant to any certification issued by the Commissioner pursuant to Section 401 (d) of the Federal Water Pollution Control Act Amendments of 1972.

Enclosure 2—Part 704, dated October 20, 1974.

- (c) Whenever the Commissioner has reason to believe that a thermal discharge, existing prior to the adoption of this Part, does not conform to subdivision (a) of Section 704.1, he may impose appropriate criteria contained in this Part upon such thermal discharge, unless, after public hearing, the owner or operator of any such thermal discharge establishes to the satisfaction of the Commissioner that either such thermal discharge does conform to subdivision (a) of Section 704.1 or that any such criteria are more stringent than necessary to assure conformance with subdivision (a) of Section 704.1.

Enclosure 3—Amendments to Parts 701.4, 701.5, 702.1  
and 702.3, dated September 20, 1974.

STATE OF NEW YORK  
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Pursuant to the provisions of Sections 15-0313 and 17-0301 of the Environmental Conservation Law, I, James L. Biggane, Commissioner of Environmental Conservation, do hereby AMEND Sections 701.4, 701.5, 702.1, and 702.3 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York as follows, effective thirty days after being filed with the Secretary of State, as adopted on this ~~20th~~ day of ~~Sept.~~ 1974, and certify that the following is the original thereof.

1. Section 701.4. Items 3 and 6 under the heading "Quality Standards for Fresh Surface Waters" shall be AMENDED to read as follows:

3.3 Suspended, [collodial] colloidal or settleable solids. None from sewage, industrial wastes or other wastes which will cause deposition or be deleterious for any best usage determined for the specific waters which are assigned to each class.

6.3 Thermal discharges [No discharge which will be injurious to fishlife or make the waters unsafe or unsuitable for any best usage determined for the specific waters which are assigned to each class.] (See Part 704 of this Title.)

2.2. Section 701.5. Items 5 and 7 under the heading "Quality Standards for Saline Surface Waters" shall be AMENDED to read as follows:

5.5. Suspended, [collodial] colloidal or settleable solids. None from sewage, industrial wastes or other wastes which will cause deposition or be deleterious for any best usage determined for the specific waters which are assigned to each class.

Enclosure 3—Amendments to Parts 701.4, 701.5, 702.1  
and 702.3, dated September 20, 1974.

7. Thermal discharges

[No discharge which will be injurious to fishlife or make the waters unsafe or unsuitable for any best usage determined for the specific waters which are assigned to each class.]  
(See Part 704 of this Title.)

3. Section 702.1. Items 9 and 11 under the heading "Quality Standards for Class A - Special Waters" shall be AMENDED to read as follows:

9. Suspended, [collodial]  
colloidal or settleable solids.

None from sewage, industrial wastes or other wastes which will cause deposition or be deleterious for any best usage determined for the specific waters which are assigned to this class.

11. Thermal discharges

[No discharge which will be injurious to fishlife or make the waters unsafe or unsuitable for any best usage determined for the specific waters which are assigned to this class.]  
(See Part 704 of this Title.)

4. Section 702.3, subdivision (b). The paragraph "Best usage of waters" under the heading "Class 'I' Waters" shall be AMENDED to read as follows:

Best usage of waters. The waters shall be suitable for [secondard] secondary contact recreation and any other usage except for primary contact recreation and shell-fishing for market purposes.

5. Section 702.3, subdivision (b). Items 7, 8 and 10 under the heading "Quality Standards for Class 'I' Waters" shall be AMENDED to read as follows:

7. [Tastes] Taste and odor-producing substances, toxic wastes and deleterious substances.

None in amounts that will interfere with use for secondary contact recreation or that will be injurious to edible fish or shellfish or the culture or propagation thereof, or which in any manner shall adversely affect the flavor, color, odor or sanitary conditions thereof, or impair the waters for any other best usage as determined for the specific waters which are assigned to this class. -

Enclosure 3—Amendments to Parts 701.4, 701.5, 702.1  
and 702.3, dated September 20, 1974.

8. Suspended, [colloidal]  
colloidal or settleable  
solids.

None from sewage, industrial  
wastes or other wastes which  
will cause deposition or be  
deleterious for any best usage  
determined for the specific  
waters which are assigned to  
this class.

10. Thermal discharges

[No discharge which will be  
injurious to fishlife or make  
the waters unsafe or unsuitable  
for any best usage determined  
for the specific waters which  
are assigned to this class.]  
(See Part 704 of this Title.)

*J. L. Biggar*  
JAMES L. BIGGAN  
Commissioner of  
Environmental Conservation

Dated: Albany, New York  
September 20, 1974

Explanation: Matter in brackets [ ] is to be deleted.

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130 Letter to R. Zener from J. Hanna, dated October  
23, 1974.

New York State Department of Environmental Conservation

Albany, N.Y. 12233



October 23, 1974

Honorable Robert V. Zener  
Deputy General Counsel  
United States Environmental  
Protection Agency  
Washington, D. C. 20460

Dear Mr. Zener:

I appreciate the opportunity to comment on Mr. Scolnick's request to you for an opinion with respect to Section 704.6 of New York's regulations relating to water quality standards for thermal discharges [6 NYCRR Part 704].

We believe that Part 704 should be approved by EPA, both on legal and policy grounds.

At the outset, I believe this question should be considered from the perspective of avoiding unnecessary burdens on the New York utility industries existing plants. Retrofit of such existing plants has been estimated to cost about \$900 million\*. I enclose for your information a copy of the Department's Hearing Officer's Report of the Department's hearings held in respect to the State's proposed Classifications and Standards Governing the Quality and Purity of the Waters of New York State. Your special attention is directed to pages 16 through 18.

Mr. Scolnick first proposes the following question:

- a. In considering the approvability of the State's water quality thermal standards under section 303(a) of the Act, may the Regional Administrator consider only the Water Quality Standard for thermal discharges in section 704.1(a), or must he consider the Standard together with the criteria governing thermal discharges in section 704.2 and the mixing zone criteria in section 704.3?

\* Quirk, Lawler & Matusky Engineers, "N.Y. Power Pool Evaluation of Proposed Revisions to the N.Y.S. Thermal Criteria", July, 1973, p.ix-14.

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130 Letter to R. Zener from J. Hanna, dated October  
23, 1974.

The "criteria" should not be considered a "Part" of the standards contained in Section 704.1(a). Such criteria are merely flexible guidelines which should generally achieve the standard subject to the right of the utility to show that one or more are not necessary to achieve the standard or the right of the Commissioner to require other limitations to achieve the standards. It is essential that EPA understand that there are differences between, for example, Lake Ontario and the Hudson River and the consequence of such differences is that guidelines must be flexible and specific to the site involved rather than uniformly applicable to all waters. Specific criteria are not as important as achievement of the standard contained in Section 704.1(a). This was supported by the Environmental Protection Agency's own expert witnesses at the Department's hearings. The Hearing Officer reports:

"However, the information provided by the EPA did not justify the expressed policy [i.e., Part 704 "criteria" should be considered water quality "standards"]. On the contrary, several experts provided information in the form of statements and/or exhibits which indicated that the imposition of Part 704 criteria on existing discharges would not necessarily provide improved protection of aquatic life."

Mr. Scolnick next poses three questions:

b. If the Regional Administrator must consider both the Standard (section 704.1(a)) and the criteria (section 704.2 and 704.3), are the State's thermal standards approvable when the "grandfather clauses" in section 704.6(a), with respect to pre-July 31, 1973 discharges, establish less stringent criteria but retain the general Standard for these classes of discharges?

c. Is the triggering mechanism in section 704.6(c) (i.e., the Commissioner's "reason to believe") and the altered burden of proof involved therein inconsistent with sections 303(g) and 316(a) of the Act?

d. Should section 316(a) be considered in approving State thermal standards under section 303 of the Act?

The answer to "d" is obvious. Section 316(a) must be considered in connection with approving thermal standards under Section 303 of the Act, because Section 303(g) provides:

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23, 1974.**

"Water quality standards relating to heat shall be consistent with the requirements of Section 316 of this Act."

This conclusion is neither startling nor very meaningful, because Section 303(g) gives little guidance about the nature of the consistency which must be had with the requirements of Section 316. Limiting the analysis simply to sections 303 and 316, it would seem that the reference to Section 316 was essentially a substantive one - mainly to the standard of maintaining a balanced indigenous population of shellfish, fish and wildlife, rather than to the procedural aspects of burden of proof set out in Section 316. This is so because Section 303 has already set forth in considerable detail the procedures applicable to water quality standards.

Also, I have considerable difficulty in transporting to Section 303 -not notwithstanding Section 303(g) - a procedural burden of proof condition which Section 316 appears to limit to an "effluent limitation" rather than a water quality standard.

Technical parsing of rather tangled legislative draftsmanship should, however, be subordinate to good sense and, in this case, principles of burden of proof normally accepted in agency proceedings involving violations of administratively set standards.

The proper analysis is as follows:

Section 704.6 is not, contrary to Mr. Scolnick's characterization, a grandfather clause.

Section 704.1(a) - the standard - is applicable to all generating units regardless of when constructed. This is far less lenient than EPA's true grandfather provision found in its new regulations on thermal discharges which completely exempt "old units" - that is, 500 or more megawatt generating units placed in service on or before January 1, 1970, or smaller generating units placed in service before January 1, 1974 (40 CFR 423.11, 30). New York's Part 704 applies the thermal criteria to all new discharges (essentially those coming into existence subsequent to July 1973), but does not apply the criteria to older discharges - in existence prior to 1969 - unless the Commissioner finds that such units violate the standard found in Section 704.1(a). Most ~~commercial~~ criteria are applicable to discharges coming into existence between 1969 and 1973 (See Parts 704.2(b) and 704.6(a)). This is justifiable because new generating units can more easily be built to uniform criteria which generally

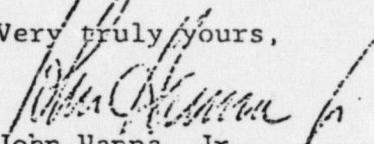
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will maximize adherence to the standard. With respect to an existing generating unit where an agency charges the violation of the standard, it is an accepted principle of administrative law that the agency bears the initial burden of proof to establish the violation charged. This is all that Section 704.6 accomplishes and does not provide the complete exemption provided by EPA's new Part 423.30.

Mr. Scolnick's precise questions are difficult to answer because we disagree with the analysis assumed in the questions. As stated, however, we would recommend that question "a" be answered yes; question "b" be answered yes with or without reference to question "a"; question "c" be answered no, and question "d" be ignored because the answer to it is meaningless.

I respectfully request that 6 NYCRR Part 704 be found by you to be approvable by the Regional Administrator in its present form.

Very truly yours,

  
John Hanna, Jr.  
Deputy Commissioner and  
General Counsel

cc: Hon. Meyer Scolnick, Director ✓  
Enforcement & Regional Counsel Div.  
Region II

Nancy Steck, Esq.



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132 Letter to Commissioner Reid from G. M. Hansler,  
dated February 23, 1974.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION II  
26 FEDERAL PLAZA  
NEW YORK, NEW YORK 10007

FEB 23 1975

Ogden R. Reid, Commissioner  
New York State Department of  
Environmental Conservation  
50 Wolf Road  
Albany, New York 12233

Dear Commissioner Reid:

On November 18, 1974, Commissioner James L. Biggane forwarded to EPA amendments to Federally-approved New York State water quality standards, Parts 701 and 702 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR), and amendments revising Part 704 (Criteria Governing Thermal Discharges), which heretofore had not been federally-approved. These amendments were submitted for formal EPA approval as revised water quality standards in accordance with section 303(a) of the Federal Water Pollution Control Act Amendments of 1972 (the "Act"). I appreciate the great efforts made by your staff in developing revised standards and particularly in developing Part 704. As submitted, Part 704 exceeds the requirements for formulation of State water quality standards needed to comply with section 303(a) of the Act by including not only standards but provisions for alternative effluent limitations for individual thermal dischargers, as well as a policy on cooling water intake structures and specific limitations on the applicability of thermal criteria.

After careful consideration of the entire file, including the records of New York State water quality standards and thermal hearings, and after detailed legal review, I am approving the amendments to Parts 701 and 702 of 6 NYCRR, and I am approving sections 704.1, 704.2 and 704.3 of Part 704. However, I cannot approve sections 704.4, 704.5 or 704.6 of Part 704 nor references to the provisions of those sections contained in sections 704.1, 704.2 and 704.3, because they are not water quality standards as defined by the statutes and regulations to which EPA must adhere. Thus I have excluded from EPA consideration under section 303(a) of the Act those aforementioned portions of Part 704 which are inapplicable.

My reasons for this action, more specifically are as follows:

(1) The criteria (sections 704.2 and 704.3) must be considered as part of the "standard" (section 704.1). The Federal Water Pollution Control Act as in effect immediately prior to the adoption of the new Act and

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dated February 23, 1974.

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40 CFR 120.2 define water quality standards as "water quality criteria and a plan for the enforcement and implementation of such criteria". To the extent that Part 704 establishes water quality criteria it satisfies the definition of and thus constitutes a water quality standard. However, those portions of Part 704 which do not provide for the implementation of those water quality criteria in a manner consistent with the Act do not satisfy the statutory definition and thus cannot be considered water quality standards.

(2) Section 301(b)(1)(C) requires water quality standards (i.e. criteria) to be met by all dischargers (regardless of the age of the facility) by July 1, 1977, unless some other section of the Act (section 316(a) for example) allows an exemption. To the extent that section 704.6 does not enable this statutory requirement to be met, section 704.6 is invalidated by section 510 of the Act.

(3) The requirement in section 704.6(c) that the Commissioner of the Department of Environmental Conservation must have "reason to believe" before he can impose appropriate criteria is inconsistent with the requirements of sections 303(g), 316(a) and 510 of the Act.

These decisions were reached after a full review and consideration of the record, including the discussions that have taken place between our respective staffs for many months. Concurrently with this letter to you, I am arranging to have published in the Federal Register notice of my previous approval of Parts 700, 701, 702 and 800 through 941, as well as my approval of amendments to Parts 701 and 702 and sections 704.1, 704.2 and 704.3 and the exemption from consideration of sections 704.4, 704.5 and 704.6.

Sincerely yours,

Gerald M. Hansler, P.E.  
Regional Administrator

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**149 Report of D. Metzler, Hearing Officer on Public Hearings to Consider Proposed Water Quality Standards, dated May 31, 1974. (Portion only.)** **Exhibit 2**

**State of New York**

**Department of Environmental Conservation**

**In the Matter of a Public Hearing**

**to**

**Consider proposed classifications and standards governing the quality and purity of Waters of New York State, Parts 700, 701, 702 and 704, Title 6, Official Compilation of Codes, Rules and Regulations.**

**Hearing Officer's Report**

**May 31, 1974**

**Hearing Officer:  
D. F. Metzler, P. E.**

**Hearing held in**

**Albany, New York**

**July 31, Aug. 8, 9, 10, 15, 1973**

**and continued in New York City**

**August 2, 1973**

**and Rochester, New York**

**August 6, 1973**

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History of Proceedings

Since 1950, New York State has administered water quality standards for the purpose of protecting the waters of the state for specific uses. These standards were submitted to and subsequently approved by the federal government in accordance with the Federal Water Pollution Control Act Amendments of 1965 and have undergone slight modifications since that time. The Department of Environmental Conservation (DEC) may establish new or modify existing standards of quality and purity of the waters of the state applicable to the classification of waters under the authority of the Environmental Conservation Law.

The Federal Water Pollution Control Act Amendments of 1972, Public Law 92-500, mandated a complete review and evaluation of water quality standards for all states. The Environmental Protection Agency (EPA) notified New York State in January 1973 that certain provisions of its existing standards were not consistent with the requirements of the new federal law. In order to comply with the EPA request, a series of meetings were held with EPA Regional officials and Department staff between January and June 1973. A proposal to revise the standards was prepared and notices of public hearings to be held in July and August of 1973 were sent to more than 18,000 persons and organizations.

The hearings were divided into two categories for purposes of receiving relevant information. All information concerned with thermal water quality standards and criteria were received on August 8, 9 and 10 of 1973. On July 31, August 2, 6, 15, 1973, information was received on all other aspects of the proposed standards. Utilization of this procedure offered a means to produce a coherent and organized hearing record and provided a convenience for persons

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wifific concerns. Some 350 individuals, many representing various organs, attended the proceedings and approximately 2,000 pages of stonic records were taken and 120 exhibits were received.

Persons desiring to be heard on particular aspects of the proposed water quality standards were instructed to present relevant and concise statements. Due to the numerous items that were proposed, it was inevitable that topics would receive more emphasis and result in a greater quantity of testimony than others. Accordingly, this report will dwell mainly with those issues of the proposed standards and those of greatest controversy. Some proposed standards received very little attention or none at all, since items were merely transplanted from the existing to the proposed statement without change. Other items were changed only to the extent of eliminating the current terminology of the new federal law. Certain other statements, particularly non-numerical ones, were reorganized and/or reworded for purposes of clarity and specificity, or as recommended by the EPA.

Preparing Proposal

The Department presented proposed water quality standards which entailed a modification of existing Parts 700, 701, 702 and 704, Title 6, O~~N~~Compilation of Codes, Rules and Regulations. The modifications were made at the request of EPA as outlined in EPA correspondence in January 1973 and subsequent communications in addition to some desires of the Department. The Department realized that a full and frank discussion of all EPA requests should be conducted at the hearings, therefore, the proposal contained both EPA and New York recommendations, although the issues on some specific items were still in negotiation stages between the agencies at the time of the

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hearings. New York's more than 20 years experience in developing and administering water quality standards, the existing standards and EPA recommended changes provide a broad background for developing the revisions which are called for under the new federal law.

At the hearing sessions of July 31, August 2 and August 6, a Department spokesman explained all changes proposed for Part 700, Tests or Analytical Determinations; Part 701, Classifications and Standards of Quality and Purity; and Part 702, Special Classifications and Standards. The Department outlined the proposed modifications for Part 704, Criteria Governing Thermal Discharges, at the August 8 session. It was made clear to the hearing participants that not all the proposed changes of the existing standards had the mutual endorsement of both EPA and the Department. In fact, there remained disputed areas which were to be illuminated by hearing participants. Therefore, the Department took appropriate measures to assure that experts in certain fields would make statements for the Department on topics considered to be especially significant. These topics included radioactivity, phosphorus, dissolved oxygen, thermal discharges and other factors affecting fishlife. Likewise, the Department requested EPA to provide experts to support its request to New York State for particular standards of dissolved solids, radioactivity, dissolved oxygen, phosphorus, turbidity, and thermal discharges.

The prominent features of the proposed regulations as submitted for consideration at the public hearings are as follows:

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(1) Two new definitions were included in Part 701.1 at the request of the EPA. According to the new federal water pollution law, all waters must be classified as suitable for either (a) primary contact recreation or (b) secondary contact recreation, unless an exemption is granted by EPA. Attendant to each of these use classifications are water quality criteria. Primary contact recreation is equivalent to bathing and other activities where the water is suitable for complete body submergence. Secondary contact recreation is equivalent to fishing and boating activities where contact between the water and the human body is minimal and where ingestion of the water is not probable. The guidance provided by the EPA stated that New York should classify its waters utilizing the two definitions given above and adopting standards that will maintain the designated uses.

(2) A few changes were proposed for the existing classification system. Class designations AA, A, B, C, D, SA, SB, SC, SD, II, A-Special and AA-Special were to be retained from the existing system, however, modifications in the standards applicable to these classifications were to be made where necessary to comply with the EPA requirements. Classes I-I and I were to be consolidated into one class, designated as Class I. A completely new class, entitled class N, was also proposed which would be designated for waters receiving no discharge of municipal or industrial wastes. Classes AA, A, and B of the fresh surface water category and classes SA and SB of the saline surface water category were designated as suitable for primary contact recreation. Class I waters were also proposed to be primary contact waters at the time of the public hearings. Classes C and D (fresh water) and Classes SC and SD (saline water) were designated for secondary contact recreation.

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No changes were proposed in the best usage for class II or class AA-Special waters.

The proposed standards for class A-Special (International Boundary Waters) were those of the Great Lakes Water Quality Agreement of 1972 between Canada and the United States.

(3) By direction of the EPA, all waters designated suitable for primary contact recreation are required to meet a bacteria standard of 200 fecal coliform per 100 ml. of sample. In the New York classification system this would generally include classes AA, A, B, SA, and SB and any other classes whose best usage includes bathing. However, the EPA fecal coliform standard was not proposed for classes AA and SA, since these two were already subject to more stringent standards at the time of the public hearings. All other waters, unless specifically exempted by EPA, would have to achieve the secondary contact standard of 10,000 total coliform or 2,000 fecal coliform per 100 ml. of sample.

(4) All waters classified as suitable for primary contact recreation were to be subject to a turbidity standard. EPA recommended a maximum of 10 Jackson Turbidity Units for all waters classified AA, A, B, SA and SB. Turbidity limits of 10 Jackson Units for trout waters and 50 Jackson Units for non-trout waters were designated for class C waters. A maximum of 10 Jackson Turbidity Units was proposed for all marine waters.

(5) A dissolved solids standard proposed by the EPA would limit classes AA and A waters to 500 mg/l or 1/3 above the natural level, whichever

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was less. The EPA also recommended that the level of dissolved solids in any water classified B or C should not be increased more than 1/3 above natural conditions.

(6) Radioactivity standards were proposed for New York Waters as a result of the recommendations by the EPA prior to the public hearings. The proposed limits for Gross Beta: 1000 pc/l; Radium 226: 3 pc/l; and Strontium 90: 10 pc/l, corresponded to the limits recommended in the 1962 US Public Health Service Drinking Water Standards and the report of the National Technical Advisory Committee of Water Quality Criteria (1968).

(7) Under the EPA proposal, the existing New York State dissolved oxygen limits would be modified by the addition of a minimum daily average of one (1) mg/l above the current minimums. This would correspond to a minimum daily average of the 6.0 mg/l and an absolute minimum of 5.0 mg/l for all trout waters. For non-trout waters, the minimum daily average would not be less than 5.0 mg/l with the absolute minimum corresponding to the current 4.0 mg/l.

(8) The EPA proposes a phosphorus stream standard for fresh water Classes AA, A, B, and C. The proposed limit on phosphorus would be a maximum of 50 micrograms per liter (ug/l) in any stream at the point where it entered any reservoir or lake and a maximum of 50 ug/l in any reservoir or lake.

(9) Existing classes D, SD, and II would be retained and assigned to waters based on the best usage for these waters. All these waters would be reviewed periodically by New York to determine whether upgrading was warranted.

(10) The public hearing proposal contained an EPA and a DEC recommendation for the control of thermal discharges. The proposal recommended temperature limitations or conditions in various types of waters, including non-trout, lakes, coastal, estuary and enclosed bays. New York State, prior to the

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hearings had been exercising control over thermal discharges through Part 704, Criteria governing thermal discharges. New York's existing Part 704 contained temperature limitations for all the aforementioned water types, except enclosed bays, and they were applied to new thermal discharges or those existing discharges that were modified. Existing thermal discharges (prior to July 1969) were not subject to the criteria of Part 704, however, all thermal discharges had to comply with a water quality standard which was designed to protect fishlife in all waters of the State. Finally, the existing Part 704 provided the authority for the Commissioner of the DEC to impose thermal criteria where the water quality standard was violated and the authority to authorize a modification of the assigned criteria after a discharger proved that the assigned criteria were unnecessarily restrictive.

Therefore, New York was administering thermal controls before the public hearings, however, the EPA notified New York that modifications were required of the existing Part 704. There were four (4) major categories where the EPA recommended modifications of the existing thermal criteria (Part 704). Firstly, all thermal discharges would be required to satisfy the criteria in Part 704, including discharges existing prior to the initial application of the existing Part 704. Secondly, a mixing zone restriction in two (2) types of waters, non-trout and estuary, was recommended that would limit the size of the mixing zone to a distance of 1000 feet from the point of discharge. Thirdly, the EPA recommended that Part 704 criteria should be water quality standards, that is, the temperature limitations would be considered absolute maximums that could not be exceeded unless an exemption was granted by the EPA Regional Administrator for specific bodies of water. The significance of this recommendation was the fact that an EPA exemption from any provisions of Part 704 would apply to an entire body of water only; individual thermal discharges could not be granted an exemption to the water quality standards. Finally, the EPA recommended that

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no thermal discharges should be allowed to specific enclosed bays of Long Island.

DISCUSSION

The information received at the public hearing indicated general agreement with the desirability and need to modify the water quality standards of New York State to protect the best usages, including drinking water, primary and secondary contact recreation, and the growth and propagation of aquatic life. However, the significant portions of the proposed regulations are the new or modified quality standards which are applicable to the classification of waters. In this area, the information given by several state agencies, the EPA, and the information received from public and private sectors varies significantly, since each party had its own theory as to the exact numbers or limits which should be specified. Therefore, at issue here is not the fact that there must be certain waters for drinking, for recreation, and for other recreational activities, but rather what parameters and what limits are necessary to guarantee that these uses are protected.

A new class, Class N, is recommended for addition to Part 701 (Classifications and Standards of Quality and Purity). The Department of Environmental Conservation presented information at the public hearings which foresees the application of this class for assignment to waters to be preserved in their natural state, free from any discharge of sewage or other wastes. There are no waters currently holding this classification.

Coliform standards are recommended for all fresh and salt water classes except classes D, SD and II. Coliform limits prior to this proposal were found in the Environmental Conservation Law, Article 17, for drinking water,

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bathing, and shellfish growing waters. The coliform limit for Class AA waters as set forth in the statute is proposed in the quality standards for Class AA waters. This standard is more stringent than required by the EPA. In order to be consistent with statutory requirements and to incorporate the recommendation by the EPA, classes A and B should have a coliform standard for both the total coliform, taken from the Environmental Conservation Law, and the fecal coliform limits as requested by the EPA. Class C waters correspond to secondary contact recreation under the Federal classification system and should utilize the total and fecal coliform standards as recommended by the EPA. Saline surface waters, classified SB and SC, should have the same coliform standards as class B and C waters, respectively. There were concerns expressed at the public hearings as to the consequences of the fecal coliform standard for waters classified as suitable for bathing. The EPA testified that the fecal coliform standard will be used as a tool for calculating permissible waste load discharges, not as a device to close bathing beaches. The state and local health agencies would retain their responsibility for bathing areas and the sanitary surveys which will determine the safety and suitability of waters for bathing purposes. The fecal coliform levels are but one of numerous factors to be considered in a sanitary survey.

A standard for turbidity was shown to be necessary in order to protect drinking water supplies and insure protection of aquatic life. However, the hearings indicated that a single numerical value could not be stated for all waters of the State, nor could a single numerical value apply to all waters in the State having the same class. Since an across the board limit for all the New York waters would not be reasonable, in many cases turbidity limits may have to be determined on a case by case basis or a watershed by watershed basis. Therefore, a non-numerical turbidity standard seems reasonable.

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which will allow enforcement flexibility to protect each body of water based on the knowledge of its natural conditions and the recognized abilities of certain waters to withstand higher or lower levels of turbidity without detrimental effects on their best usage.

Dissolved solids standards are recommended for classes AA, A, B, and C. The original proposal has been altered as a result of information given at the public hearings. The EPA and Department of Environmental Conservation fully supported a maximum limit of 500 mg/l for drinking water classes AA and A; however, the additional limitation of one-third (1/3) above natural conditions has been deleted, since there was no information given that supported such a standard. The maximum limit of 500 mg/l has been shown to be a reasonable limit for drinking water supplies and has been long recommended by health agencies responsible for public water supplies. Adverse effects have been noted above this level, such as taste, and high concentrations of dissolved solids in a water supply may increase water treatment costs. Of concern, also is the fact that man-caused increases in dissolved solids may involve additions of soluble chemicals and industrial solvents endangering the safety of water supplies, especially where the removal of some substances is not achieved by conventional treatment processes. Therefore, a limit of 500 mg/l of total dissolved solids is recommended for classes AA and A with an additional requirement that the level be kept as low as practicable. This will insure a continuance of adequate high-quality water for public needs.

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Adverse effects on aquatic life is possible with a high dissolved solids level. Information presented indicated that a sudden or large change in the dissolved solids content of waters may cause a significant change in biological communities. For this reason, a total dissolved solids (TDS) standard is recommended for classes B and C. In these waters the TDS content should not be detrimental to aquatic life and in order to prevent degradation, all these waters presently having TDS concentrations less than 500 mg/l should be kept below this limit.

Limits on radioactivity, including the measurement of Gross Beta, Radium 226, and Strontium 90, are recommended for adoption to apply to all fresh surface waters and all saline surface waters. The standards, based on the U.S. Public Health Service drinking water standards (1952), seems reasonable from a review of the hearing record as follows:

(1) Monitoring and evaluation by the Bureau of Radiological Pollution Control (Department of Environmental Conservation) of several thousand samples collected yearly throughout the state in 1971 and 1972 confirms that the proposed radiological limits have not been exceeded except for one specific case.

(2) The proposed radiological limits if adopted for all waters of the state would provide an added margin of safety for primary and secondary contact recreation which includes whole body submergence (swimming), fishing, boating, and other recreational, agricultural and industrial uses.

(3) The hearing record does not show that a conflict would exist between the Department in setting water quality standards for radioactivity

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and the Atomic Energy Commission's right to set effluent limits, except for the one possibility mentioned during the hearing.

(4) The Department maintained that the proposed limits are reasonable standards which are in accord with the nondegradation policy that was previously adopted in 1971; the existing water quality must be maintained when it is better than the standards which are assigned.

Some testimony at the hearing opposed the imposition of radioactivity limits on all waters of the State. Those persons opposed to this policy did support the radioactivity criteria for classes designated as drinking water, however, opposed the same criteria for non-drinking waters. Those opposed to the radioactivity criteria for all classes stated that technical evaluation should be performed for non-drinking waters before adopting the proposed limits. In summary, there was general agreement that radioactivity criteria could be assigned to all waters of the State; however, the specific limitations to be imposed for non-drinking waters created the most significant debate.

For more than 20 years, New York State has used dissolved oxygen standards to protect both cold and warm water species of fish. The limits used have been a minimum of 5 mg/l for trout waters and a minimum of 4 mg/l for non-trout waters. The Department of Environmental Conservation submitted information which indicated that the existing limits have protected the desired species, and that in general fishlife has shown satisfactory growth. Therefore, the existing dissolved oxygen standards do provide a margin of safety which has proven itself in actual practice in New York State waters. Information provided by the EPA indicates that all waters must carry the minimum of 4 mg/l in

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order to provide for a good mixed fish population. However, other hearing information indicates that the 4 mg/l level is not an absolute rule and that fish populations may be found living at levels below 4 and 5 mg/l, although they may exhibit growth at a slight reduction from the rate attained at higher D.O. levels.

Dissolved oxygen standards are extremely difficult to determine as biologists simply cannot agree whether adverse effects begin at 5 or 6 mg/l or at some other level. Indeed, as one Department spokesman observed, debating the differences of 1 mg/l would be hairsplitting from a biological standpoint. However, a standard must be specified which will generally meet the requirements of all aquatic species in the waters of New York State. The information given by persons at the hearing indicates that a minimum daily average and a corresponding absolute minimum dissolved oxygen concentration would protect New York's fresh waters against damage to aquatic communities. The minimum daily average of 6 mg/l for trout waters and 5 mg/l for non-trout waters seems reasonable when supported by the absolute minimums that have been used in New York State for the past 20 years. Experience in New York State thus far has indicated that if diurnal fluctuation does not reduce the oxygen below the absolute minimum in cases of organic pollution, the daily average recommended by EPA will be met or exceeded, except possibly for a few of the largest waters.

After a review of the information and data presented, no scientific justification can be found for an across the board 50 ug/l phosphorus standard for all lakes and reservoirs and for streams where they enter those waters. It is clear that the proposed EPA standard would not prevent or retard the eutrophication in all lakes and may not be stringent enough for others. A more rational method of phosphorus control would be a policy requiring control of phosphorus inputs of man-made origin to the drainage basins of lakes and reservoirs. Such a policy would require treatment of waste discharges to waters to remove

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phosphorus in amounts which would be reasonable in view of the existing technology. A single phosphorus limit for all lakes in the State of New York is unrealistic and scientifically unsupportable, since it is clear that eutrophication is a natural state of events for all lakes, thus it proceeds at slow rates in some and faster rates in others. It is not reasonable to assume that the 50 ug/l standard is natural for all bodies of water because it has been found in a few lakes which are eutrophying slowly. Finally, because of the variability between different bodies of water within the State of New York, no phosphorus stream standard is recommended for adoption at this time.

The original proposal for Class I waters as being suitable for primary contact recreation drew much criticism. These waters are primarily in the New York City area and are subject to organic loading, combined sewer overflows and the hazards of marine traffic. Information received indicated that the proposed standard of 200 fecal coliform per 100 ml for Class I waters would be contravened by the combined sewer overflows in the New York City area. Other information presented shows that the waters of New York City area cannot meet a coliform standard for primary contact recreation now or in the near future due to discharges of municipal sewage and combined sewer overflows. Also, it is clear that bathing in these waters would not only be undesirable from the point of view of organic pollution, but also because of the heavy traffic from commercial shipping. Therefore, secondary contact recreation (fishing and boating) is a more realistic usage of these waters at this time. Class I waters should be suitable for secondary contact recreation and be subject to the coliform standard of 10,000 total coliform and 2,000 fecal coliform.

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The public hearings provided a significant forum for the discussion of control of thermal discharges. A review of the record shows a general unanimity among the participants that there must be reasonable regulation of thermal discharges in order to protect aquatic life. The Department of Environmental Conservation expressed the position that its present policy of controlling thermal discharges was adequate protection for aquatic life; that is, all discharges should comply with a water quality standard and new or modified discharges should be subject to thermal criteria. As far as existing thermal discharges, prior to July 1969, they are not currently subject to Part 704, and the hearing record provides the justification that this policy should continue because (1) these thermal discharges are subject to a water quality standard that is designed to protect aquatic life and (2) specific thermal criteria can be assigned when violations of the standard are shown through studies of the aquatic life in the area of the discharge.

The EPA presented a policy statement at the hearing which opposed the DEC program of not assigning Part 704 criteria to thermal discharges existing prior to 1969. The EPA stated that Part 704 should be considered water quality standards and applicable to all thermal discharges. However, the information provided by the EPA experts did not justify the expressed policy. On the contrary, several experts provided information in the form of statements and/or exhibits which indicated that the imposition of Part 704 criteria on existing discharges would not necessarily provide improved protection of aquatic life.

In nearly all cases, participants of the hearing supported a policy of flexibility in administering thermal criteria. The DEC stated that it opposed

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rigid temperature standards and one EPA spokesman noted that any single temperature requirement would be unrealistic because of the many variables involved. The record shows that the thermal requirements of Part 704 should provide adequate control over thermal discharges, but the regulation should also provide for review of alternative criteria that will also meet the water quality standard at specific sites of thermal discharge.

The DEC and the EPA supported a proposal to prohibit thermal discharges to enclosed bays. The DEC cited specific enclosed bays of Long Island which were stated to be of unique ecological character and required special protection. These bays are Jamaica Bay, Hempstead Bay, Great South Bay, Moriches Bay, Shinnecock Bay and Mecox Bay. Some opposition to this proposal was voiced by industry representatives who felt that studies of individual enclosed bays should be performed before determining whether or not thermal wastes should be discharged. However, the DEC position on all the criteria in Part 704, including the proposed enclosed bays criteria, would include a provision for a modification of the criteria after an application was entered by an industry requesting a modification. The industry would have the opportunity at a public hearing to present its studies which support its case for a modification of the criteria for enclosed bays. Based upon the hearing record which established the delicate nature of these bays, any additional thermal input should be prohibited. Any existing discharges to enclosed bays would have to comply with the water quality standard.

The EPA proposed that the mixing zone allowed for thermal discharges to non-trout streams and estuaries should not extend more than 1000 feet in any direction from the point of discharge. An EPA spokesman at the hearing acknowl-

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edged that EPA favored this limit because it wished to specify a maximum radius for the discharge, although an exception could be granted by EPA for a specific water body if ample justification were presented. Additionally, the EPA presented the 1000-foot limit as a recommendation which was to be examined during the hearing for adequacy as a thermal criterion. Upon review of the hearing record, there does not exist ample justification for a 1000-foot mixing zone limitation in non-trout streams and estuaries. The existence of such a limit was not shown to be necessary to provide protection of aquatic life. A technical expert for EPA responded that he would not recommend a "blanket number" for mixing zones. Other technical experts expressed their reasons for opposition to either the rigid application of mixing zone limits or the establishment of limits without scientific justification. No information was presented that would lead to the conclusion that a 1000-foot mixing zone limit was based on some biological need. Rather, the 1000-foot mixing zone appears to have been administratively chosen as an outside limit for non-trout streams and estuaries.

Recommendations

- (1) A new class, class N, is recommended as an addition to Part 701, such that certain unpolluted waters may be preserved in a natural condition for public enjoyment.
- (2) Classes AA and A should contain standards of quality which will maintain these waters as high quality sources of public water supply. To accomplish this, standards of color, turbidity, total dissolved solids, phenolic compounds, radioactivity and coliform density should be added to protect the best usage.

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- (3) In order to maintain the best usage of classes B and C, standards are necessary which will protect the uses specified for primary and secondary contact recreation and will preserve the present integrity of waters now classified either B or C.
- (4) Dissolved oxygen standards as recommended by the EPA and New York State should be assigned to fresh water classes AA, A, B and C to protect all fisheries and other aquatic life.
- (5) A phosphorus standard for New York lakes and reservoirs is not recommended because the goal of halting cultural eutrophication in New York waters can be realistically and scientifically achieved through the existing ban on phosphate laundry detergents and the policy of requiring phosphorus removal in wastewater effluents discharged to specified drainage basins.
- (6) Classes D, SD and II should be retained because it has been shown that these classes represent waters which cannot meet the quality standards of other classes. Where possible, classes D, SD and II should be upgraded when it has been determined that these waters are suitable for fish propagation, swimming or public water supply.
- (7) Standards for pH, turbidity and color should be added to saline surface water classes SA, SB, SC, SD and I. Coliform standards to protect primary contact recreation are needed in class SB waters. Secondary contact recreation should be maintained by the addition of appropriate coliform standards to classes SC and I.

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- (8) It is recommended that all thermal discharges comply with a single, non-numerical water quality standard that will protect aquatic life. Criteria Governing Thermal Discharges, Part 704, should continue to apply to new thermal discharges and modifications to existing discharges.. Existing thermal discharges (those approved before 1969) should not be subject to the criteria of Part 704, however, mandatory compliance with the water quality standard must remain.
- (9) In the event that a person or persons responsible for a thermal discharge objects to the criteria applicable to his discharge and wishes a modification of such, the regulations should provide the mechanism for review and judgment of the adequacy of the modification for compliance with the water quality standard.
- (10) It is recommended that no additional thermal discharges be allowed to the enclosed bays of Long Island specified in this report.
- (11) The 1000-foot mixing zone limit proposed for non-trout streams and estuaries is not justified in view of the hearing record and is not recommended for inclusion in Part 704.



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dated November 20, 1974.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

NOV 20 1974

OFFICE OF  
ENFORCEMENT AND GENERAL COUNSEL

TO: Meyer Scolnick  
Director, Enforcement Division  
Region II

FROM: Associate General Counsel  
Water Quality Division

SUBJECT: New York State Thermal Standards

This is in response to your request for an opinion as to the approvability of New York State's water quality standards relating to thermal pollution. The standards include, in addition to a narrative standard and numerical criteria, a "grandfather" type of provision that excuses facilities built prior to 1969 from complying with the numeric criteria unless the Commissioner has "reason to believe" that violation of the criteria results in a violation of the narrative standard. The narrative standard is basically the same as the standard established in section 316(a) of the Federal Water Pollution Control Act - assurance of the protection and propagation of a balanced, indigenous population of fish, shellfish and wildlife in and on the water. We have reviewed the standards in light of the requirements of sections 301, 303 and 316 of the Act, and it is my opinion that they must be rejected as inconsistent with the requirements of the Act.

Your first question concerns whether the numerical criteria included in the New York standards (Part 704) must be treated as part of the standards, or if the narrative statement alone (§704.1) can be considered as the standard. Section 303(a) of the Act requires that water quality standards be reviewed for consistency with the Act as in effect prior to October 18, 1972. Section 10(c) of the prior Act requires the establishment of water quality criteria and implementation plans designed to protect the public health or welfare, enhance water quality, and support designated uses. In implementation of these requirements 40 CFR 120.2 defines water quality standards as "consisting of water quality criteria and a plan for the enforcement and implementation of such criteria." Further, in the basic guidance document for implementing section 303 of the Act ("Guidelines for Developing or Revising Water Quality Standards," Environmental Protection Agency, January 1973), a water quality standard is defined for purposes of section 303(a) as "the designated stream uses or classifications, criteria to

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dated November 20, 1974.

protect those uses, implementation and enforcement plans, and the antidegradation statement." I think it is clear that, pursuant to these statutory and regulatory provisions, both the criteria and the narrative standard in Part 704 are part of New York's thermal standards, and as such must be applied in permits pursuant to section 301(b)(1)(C) of the Act.

I believe that the "grandfather" procedure, set out in section 704.6 must be also read as a part of the water quality standards, since it has such significant impact on the applicability and enforceability of the standards. Under this reading I believe that the New York standards must be rejected for the following reasons:

- 1) Water quality standards must cover all waters of the State and be applied in accordance with the allocation procedures in section 303 of the Act to all dischargers. (Legislative History of the Water Pollution Control Act Amendments of 1972, Ser. No. 93-1, January 1973, 361.) To the extent that the provisions of section 704.6 allow achievement of lower criteria by some dischargers on some water segments, they are inconsistent with the requirements of the Act.
- 2) Section 301(b)(1)(C) of the Act requires that State (or more stringent Federal) standards be implemented no later than July 1, 1977. To the extent that the provisions of section 704.6 set up an implementation and enforcement scheme that excuses some dischargers from compliance with the standard (including the criteria), they are inconsistent with this requirement of the Act.
- 3) Section 303(g) of the Act requires that water quality standards be consistent with the provisions of section 316. The issue raised concerning the applicability of section 303(g) to this situation is twofold: Does the section apply at this state in the New York standards review despite the section 303(a) references to the prior Act? Does it apply to procedural provisions such as section 704.6, or only to substantive requirements? The legislative history of section 303 provides little if any guidance as to the intended effect of subsection (g). In reviewing this section in relation to other pertinent sections, however, I have concluded that section 303(g) is applicable to the review of the New York standards, and that it was intended to deal with precisely the situation presented by the section 704.6 procedure.

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First, section 316 is itself both a procedural and a substantive provision. The legislative history of this section makes it clear that thermal pollution is to be regulated "as any other pollutant," unless the showing required by section 316(a) is made by the discharger. (Legis. Hist. 175.) The Administrator is authorized under section 316 (a) to "waive" the requirements of sections 301 and 306. (Legis. Hist. 239.) The section thus establishes a mechanism for exempting dischargers from substantive requirements independently established pursuant to other sections of the Act. "Consistency" with the section, required by 303(g), can only be read as consistency with the essential elements of the mechanism established in section 316, including both the substantive standard and the evidentiary steps for meeting it.

Second, I think that adopting this interpretation allows us to harmonize section 303(g), which mentions no particular time framework, and section 303(a), which ties the initial EPA water quality standards review to a determination of consistency with the requirements of the prior Act. We have indicated previously (see opinion attached, December 29, 1972) that this provision requires consistency with the substantive requirements of section 10 of the prior Act, since the procedural mechanisms for implementation under the prior Act were so clearly rejected by the Congress in the 1972 Act. Applying 303(g) to the initial stage of standards review to require consistency with the procedure established in section 316 is therefore in no way inconsistent with the 303(a) reference to the prior Act.

It is therefore my opinion that section 704.6, to the extent it establishes an exception procedure inconsistent with that established in section 316(a) of the Act, is inconsistent with the requirements of sections 303(g) and 301(b)(1)(C) of the Act. (Section 301(b)(1)(C) requires compliance with water quality standards unless some other section of the Act allows an exception.) Section 704.6 calls for enforcement of the standard's criteria where the Commissioner has "reason to believe" the narrative standard is not being met. While the nature of the evidence necessary to justify a "reason to believe" is not clear, it is clear that some affirmative burden to justify making an initial determination is placed on the Commissioner, before compliance with numerical criteria can be required by a discharger. This is contrary to the provision of section 316(a) that dischargers must meet the criteria unless they can show that it is not necessary to assure the protection and propagation of a balanced indigenous population of fish, shellfish and wildlife in and on the water.

It is therefore my opinion that the New York thermal standards should be disapproved as inconsistent with the requirements of the Act.

*G. William Frick*  
G. William Frick

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Attachment—Memorandum to Chief Planning and Standards Branch from Associate General Counsel, dated December 29, 1972.

*Sec. 30*



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

**DEC 29 1972**

OFFICE OF  
IMPLEMENTATION AND GENERAL COUNSEL

MEMORANDUM

TO : Chief, Planning and Standards Branch  
Water Planning Division

FROM : Associate General Counsel

SUBJECT : Proposal and Promulgation of Water Quality Standards by EPA Pursuant to Section 303(b) of the FWPCA -- Public Hearing Requirements

QUESTION

Is EPA required to hold public hearings either before or after proposal of water quality standards under section 303(b) or 303(c) of the FWPCA?

ANSWER

Public hearings are not required to be held by EPA as part of the process of proposal and promulgation of water quality standards under section 303(b) or 303(c). However, such hearings could be held as a discretionary matter in order to encourage public participation in the standards setting process if a State fails to take any action after EPA proposes standards. Public hearings would help build a strong record supporting the standards in the event they are subsequently subjected to judicial review.

DISCUSSION

We have held up responding to your memorandum on this subject dated November 15, 1972 until the proposed Federal Register publication concerning the review by EPA of standards under sections 303(a) and 303(b) was resolved. You may recall that originally we had suggested revamping the present Part 122 under Title 40 CFR so as to delete the standard conference procedure required under the former law. A new Part 122 which would cover promulgation by EPA of standards under section 303(b) or 303(c)

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of the Act, could have addressed the hearing issue. The Federal Register notice of standards subject to review under 303(a) which will appear in the Register shortly, does not, of course, treat the matter of public hearings.

We continue to recommend revising Part 122 of Title 40, CFR within the next few months once the dust has settled with respect to the initial review of standards by the Regional Administrators under section 303(a). In revising Part 122, I would recommend inclusion of a provision giving EPA the discretion to hold public hearings after proposal of standards under section 303(b) or 303(c) in those instances where in the judgment of the Regional Administrator the issues raised in the proposed standards, or the public interest evinced in the standards, are sufficient to warrant holding a public hearing. You are correct, however, that such hearings are not mandatory under the new law.

As you know, the new FWPCA drops the provision in the previous law [section 10(c)(2)] requiring a standard setting conference prior to proposal of water quality standards by EPA. In my opinion, the reference in section 303(b)(1) to standards to be proposed and published by EPA "in accordance with the applicable requirements of this Act as in effect immediately prior to the date of enactment of" the 1972 Amendments, refers to substantive rather than procedural requirements of the previous law. The standard setting conference requirement, it seems to me, would constitute a procedural rather than a substantive provision.

Looking to the new law, section 303(b), and for that matter section 303(c)(4), omits any requirement that EPA hold public hearings either prior to proposal of standards or in the interim period after proposal and before promulgation. This omission clearly was not inadvertent since public hearings are explicitly required under section 303(c)(1) to be held by States prior to modification and adoption of standards. Therefore, I think we are on solid ground legally if we do not hold public hearings in connection with standards promulgated under either section 303(b) or section 303(c)(4).

Although public hearings are not legally required, we may nevertheless want to hold at least some hearings after proposal of standards in order to provide an opportunity for public participation which is similar to that which we require of States where:

(1) States adopt standards after changes are specified by EPA under section 303(a), or (2) States adopt standards after proposal of standards by EPA under either section 303(b) or section 303(c). As I understand it, we intend to require States to hold public hearings in both of these situations. However, if States fail to

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Standards Branch from Associate General Coun-  
sel, dated December 29, 1972.

take any action after standards revisions are proposed by EPA, then, of course, the hearing requirements we have insisted that the States adhere to would not come into play. Since the consideration of public participation would appear to be the same whether a State or EPA acts to adopt water quality standards, it may be argued that this Agency should go at least as far in encouraging public participation as we require States to go. I recognize that provision for discretionary hearings is essentially a policy decision, although standards adopted by EPA under Sections 303(b) or (c) would be stronger from the point of view of judicial review if public hearings are held.

*Robert V. Zener*  
Robert V. Zener

AFFIDAVIT OF SERVICE BY MAIL

State of New York )  
County of Genesee ) ss.:  
City of Batavia )

Re: Bethlehem Steel Corp. vs.  
Environmental Protection  
Agency et amo.

Docket No. 75-4119

I, Leslie R. Johnson being  
duly sworn, say: I am over eighteen years of age  
and an employee of the Batavia Times Publishing  
Company, Batavia, New York.

On the 2nd day of March, 1976  
I mailed 10 copies of a printed Appendix in  
the above case, in a sealed, postpaid wrapper, to:

A. Damiel Fusaro Esq.  
Clerk, U. S. Court of Appeals  
2nd Circuit, New Federal Court House  
Foley Square  
New York, N.Y. 10007

at the First Class Post Office in Batavia, New  
York. The package was mailed Special Delivery at  
about 4:00 P.M. on said date at the request of:

Phillips, Lytle, Hitchcock, Blaine & Hyber Esqs.

3400 Marine Midland Center, Buffalo, NY 14203, Att: David K. Floyd

Leslie R. Johnson

Sworn to before me this

2nd day of March, 1976

Patricia A. Lacey

PATRICIA A. LACEY  
NOTARY PUBLIC, State of N.Y., Genesee County  
My Commission Expires March 30, 19???